

AN ASSESSMENT OF BUYER SATISFACTION OF A  
MULTINATIONAL AIR CONDITIONING COMPANY'S SERVICE DIVISION

by

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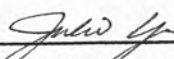
RESEARCH REPORT

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## ABSTRACT

Nowadays, demands of consumers for high-quality service are higher than ever; businesses must recognize the realities of buyers' satisfaction if they wish to survive. This is especially important in the developed and developing countries like Hong Kong, where markets for service industry are growing and competition is keen. Organizations must manage the quality of service performance to compete successfully.

Organizations must realize that service quality is not perceived objectively and neutrally, it is evaluated entirely in the perception of the buyers. A single mistake can alienate a customer and the results can be costly due to the negative "word-of-mouth" effect. On the other hand, this multiplier effect can have positive results for companies that commit to buyers' satisfaction and focus on successful service formulae.

According to many researches, customers seldom take the trouble to report dissatisfaction. A systematic survey of buyers' satisfaction assessment is therefore necessary to measure performance. The objective of this survey is to use Carrier as an example to illustrate how such a survey can be formulated and used as a base to improve service to customers.

This project has focused on several items:



identification of current customer target, develop of a service link model, collection of feedback from buyers, and interpretation of the results. The survey results are intended to serve as a basic reference for future studies on service improvement programmes.

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## PREFACE

This research was sponsored by Carrier Hong Kong Limited. Part of the information contained in this report is considered confidential. This report should not be disclosed to the public without the permission of either the Three Year MBA Programme of the Chinese University of Hong Kong or Carrier Hong Kong Limited.

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## CHAPTER I

### INTRODUCTION

#### BACKGROUND

Carrier Hong Kong Ltd. is a U.S. multinational in the business of distributing and servicing air conditioning systems in Hong Kong. The company's product lines include small residential window/split room air conditioners, consumer and commercial packaged air conditioners, as well as large centralized air conditioning systems.

The company has a service division which provides after-sales support to customers and it also acts as a profit center by itself as well. The service division is composed of about 300 direct laborers who perform warranty works, repairs and contractual maintenance. They service Carrier equipment, as well as other brands. The service division is divided into several departments:-

Consumer Service - This is set up to serve the end user residential market - window room air conditioners. Its main focus is to provide quality after-sales warranty service.

Hong Kong Branch - This is set up to serve Hong Kong Island's consumer and commercial package market. This market includes deluxe residentials, small to medium size factories and commercial complexes.



Kowloon Branch - This is set up to serve Kowloon Peninsula and New Territories consumer and commercial package market.

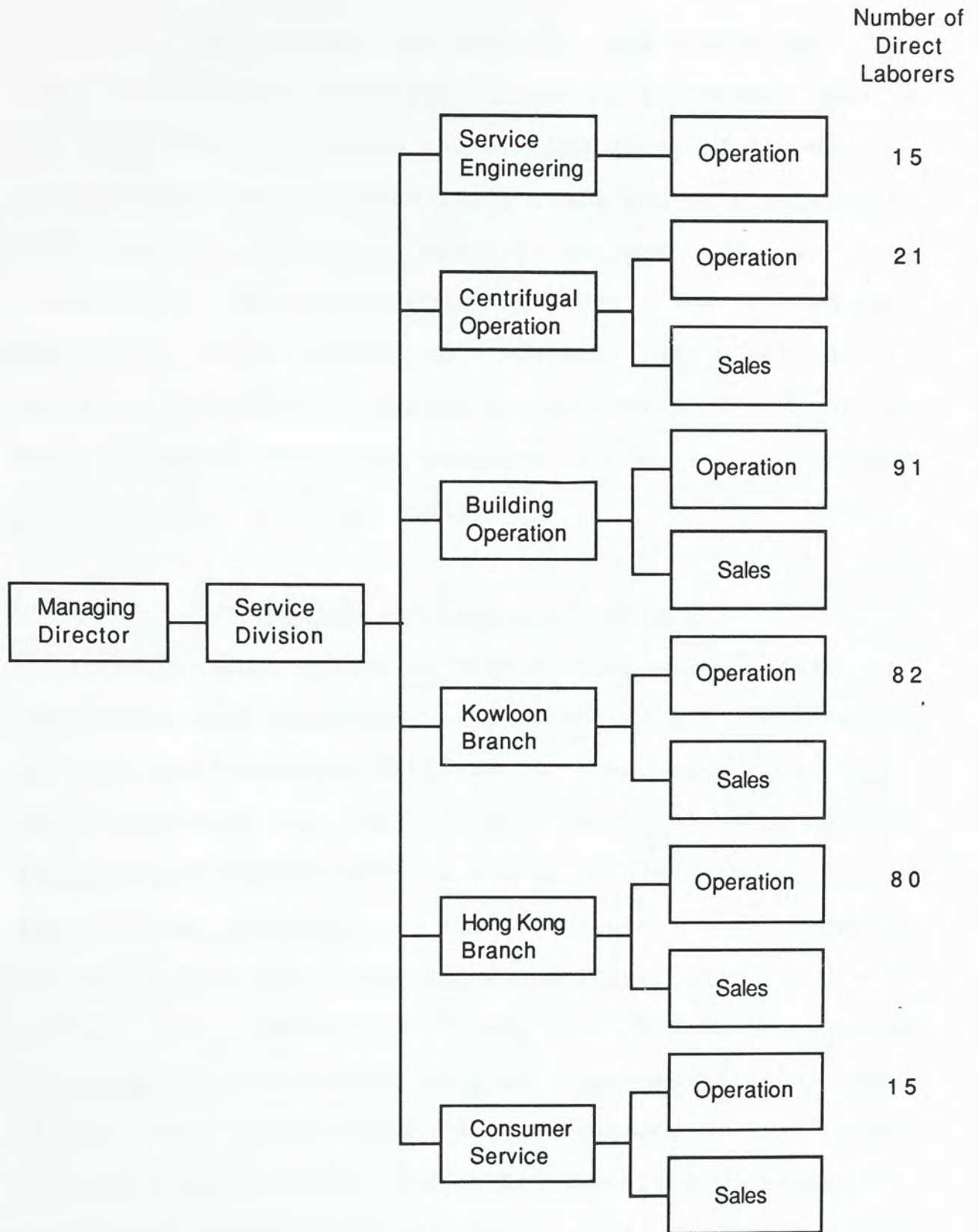
Building Operation - This is set up to serve customers who require on-site operators within their building premises to monitor and maintain their central air conditioning systems. Examples are hotels and big shopping centres.

Centrifugal Operation - This is set up to serve the more complicated centrifugal central air conditioning systems. The members in this group are technical specialists in centrifugal machines.

Service Engineering - This is set up to perform consumer and commercial warranty works so the Branches can focus on being profit centres. At the same time, the service engineering group can focus on warranty works so as to provide a higher service level to new customers.

The organization chart of the service division is illustrated in FIGURE 1.

In 1985, top management foresaw the growth potential of service and decided to invest in a computer system as a strategic tool to expand the business. The main objective is to achieve buyers' satisfaction through prompt retrieval of customer information, efficient dispatching, prompt quotations and correct billings. The system was thus tailor-made and implemented in late 1986. However, the service information system has since been used by middle management mainly to control costs and obtain



**Figure 1**

Carrier Hong Kong Ltd's Service Division  
Organization Chart



financial information more quickly. The system has thus been viewed as a financial control tool rather than a marketing tool. Although the profitability of the service business has grown substantially since the introduction of the system, customer complaints do not seem to have lessened. Top management believes that long-term prosperity still rests upon buyers' satisfaction. A customer satisfaction survey is considered as a tool to help generate external pressure in order to trigger organizational attitude change.

#### GROWING IMPORTANCE OF SERVICE

Today, more than ever before, companies across all industries and countries are striving to achieve quality service and customer satisfaction. We have seen many books written on the subject, e.g., In Search of Excellence by Tom Peters and Robert Waterman, Managing in the Service Economy by James Heskett, and Managing Quality: The Strategic and Competitive Edge by David Gawin, just to name a few, along with numerous magazine articles on the subject such as Time magazine's cover story, "Why is Service So Bad", (February 2, 1987) and Fortune's cover story, "How to Get Customers to Love You", (March 13, 1989). Not only is the service sector generating more interest, it is also generating more jobs than its manufacturing counterpart in most of the more developed countries in the world. In Hong Kong, we can see a similar trend, as illustrated in TABLE 1.



TABLE 1

## Hong Kong's Growing Demand For Services

Total Work Force: 2.7M (1988)

	<u>Manufacturing</u>	<u>Tertiary Services</u>
1971	47%	41%
1981	41%	47%
1986	36%	55%
1988	34%	63%

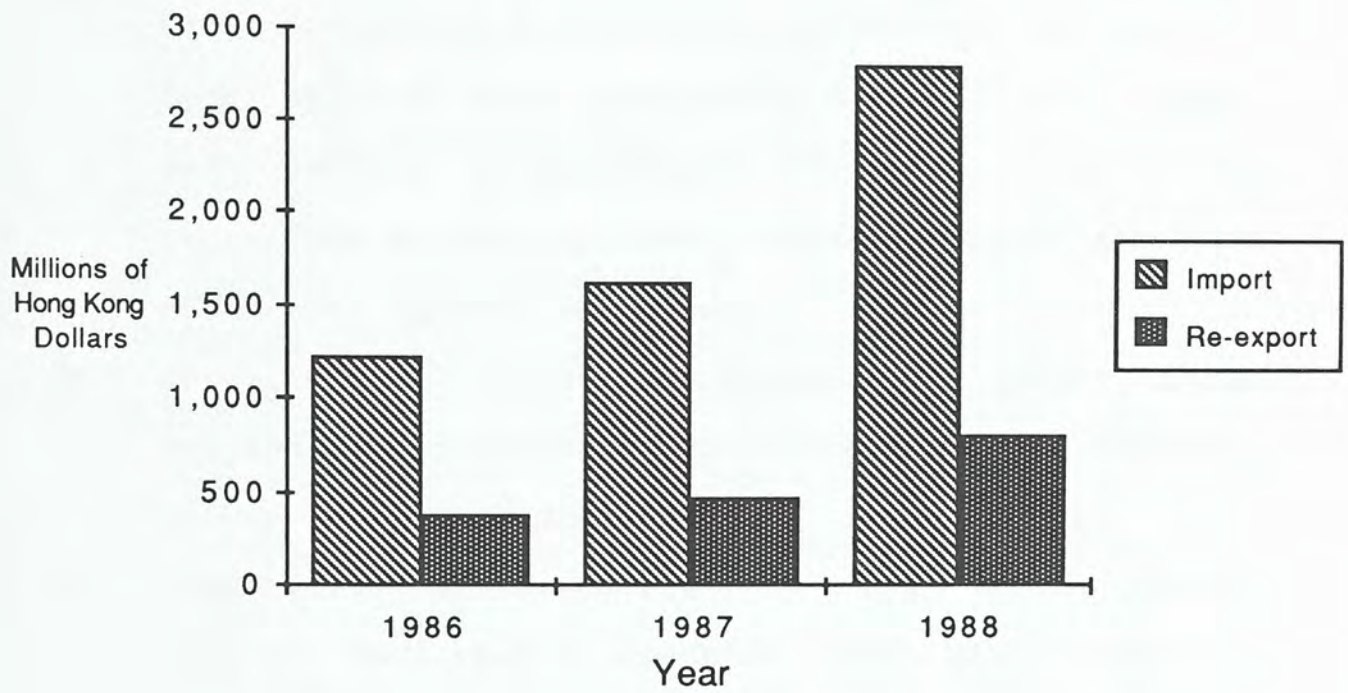
Source: Census and Statistics Department, Hong Kong.

As for the air conditioning industry, service and customer satisfaction are gaining importance due to the following reasons:

1. The air conditioning equipment market is growing strong in Hong Kong. FIGURE 2 illustrates the annual import and re-export statistics for the past 3 years. More installations mean more opportunities for service.
2. Competition is getting very keen; more supply than demand creates a buyer's market. Customers nowadays are more educated and informed and they have more choices among which they may allocate their resources.
3. It is getting more and more difficult to distinguish between tangible products these days due to technological advances. Service that adds value to straight selling is being used as a strategic tool to gain accounts and lock out competition. Service,

**Figure 2**

Hong Kong Air Conditioning Equipment  
Import and Re-export Statistics



Source : Census and Statistics Department of Hong Kong



especially a maintenance contract, is a way to establish on-going communication and information flow between the customer and the vendor. With a better understanding of customers' needs and values, one can lock out competition from other independent service organizations.

4. Service provides an opportunity to develop a longer term partnership between the customer and the vendor. Each service call, each account visit, each phone call becomes an opportunity to leave a favourable impression on the customer. This can foster a chance for mutual respect and trust.
5. Service cost is getting higher. A higher price creates higher customer expectations and the customer becomes more demanding.
6. Dissatisfied customers are very costly to the company because they tend to speak of their dissatisfaction to other people. According to some studies, a dissatisfied customer tells eleven people, compared to only three when he is satisfied.<sup>1</sup> This negative "word-of-mouth" incurs costs. According to many researches, it is more costly to gain a new customer than to prevent a dissatisfied customer. Studies by Forum Corporation, a Boston-based consulting firm that specializes in consumer service, show that keeping a customer typically costs only one-fifth as

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<sup>1</sup> Professor Jacques Horovitz, "How to Check the Quality of Customer Service and Raise the Standard", IMEDE article, 1987.



much as acquiring a new one.<sup>2</sup> This shows that keeping customers happy makes financial sense.

7. Conversely, satisfied customers not only generate repeat services but also become the firm's principal vehicles for powerful "word-of-mouth" advertising.

In conclusion, service can be profitable and can also be used as a key differentiator among competitors to gain market share.

#### LOCAL AIR CONDITIONING SERVICE MARKET

The Hong Kong air conditioning service market can be broken down into four segments:

- (A) Residential Room Air Conditioning Units - The majority of customers are in this segment. The customer usually employs service when there is a breakdown; he usually goes back to the equipment manufacturer for warranty work, or a backyard shop for repairs. The market is price conscious and the concept of a contractual maintenance agreement is not yet popular. Major contractual customers are typically large corporations and the Hong Kong Government. Equipment manufacturers usually focus on warranty work and large contractual customers. Residential repairs are dominated by backyard shops.

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<sup>2</sup> "Getting Customers to Love You", Fortune, 13 March, 1989, P. 26.

- (B) Consumer and Commercial Package Market - This segment consists of factories, shopping arcades, restaurants, small commercial complexes and deluxe residential units. The customers here accept the concept of preventive maintenance because air conditioning is essential to their business. The market is growing and is not as price conscious as its residential counterpart. Major players in this field are the various dealers or contractors of equipment manufacturers. Carrier is the largest service company in this segment.
- (C) Building Operation - These are the customers that require on-site operators to monitor equipment performance. Examples are hotels and large shopping centres. However, some customers keep their own in-house maintenance team rather than subcontracting out for service.
- (D) Retrofit Market - Sometimes old installations need to be redesigned and replaced. Major players are contracting firms.

The future outlook for the local air conditioning market is promising since equipment installation is increasing (refer to FIGURE 2). However, the market is getting more and more competitive due to more entrants, mainly dealers and contractors.



## CHAPTER II

### SCOPE AND OBJECTIVES

#### SCOPE OF THE STUDY

Since Carrier Hong Kong's service business is targeted toward many customer segments, it is impractical, within the time and resources available, to address all of them. An analysis was done based on past information and financial records and it was decided that the research would only address existing contractual customers in the consumer and commercial package market. There are several reasons for selecting this segment:

1. Looking at the past 3 years' equipment sales, the biggest surge of revenue came from residential, consumer and commercial markets, as indicated in FIGURE 3. A great opportunity exists as the service life cycle progresses in the growth stage.
2. Contractual customers accounted for 80 percent of the total maintenance and repair business in 1988.
3. Among the contractual customers, the consumer and commercial package market segment is the biggest and fastest growing one, as illustrated in FIGURE 4.
4. Contractual customers provide a stable source of income and the workload can be managed more easily.



Figure 3

Carrier Hong Kong's Equipment Sales  
By End User (1986 - 1988)

(In Millions of HK Dollars)

Category	1986		1987		1988	
	Sales	%	Sales	%	Sales	%
Residentials	56.4	33%	49.5	24%	66.4	24%
Consumer & Commercial	53.4	32%	82.9	40%	114.7	42%
Large Building Systems	59.4	35%	74.8	36%	90.5	33%
	169.2	100%	207.2	100%	271.6	100%

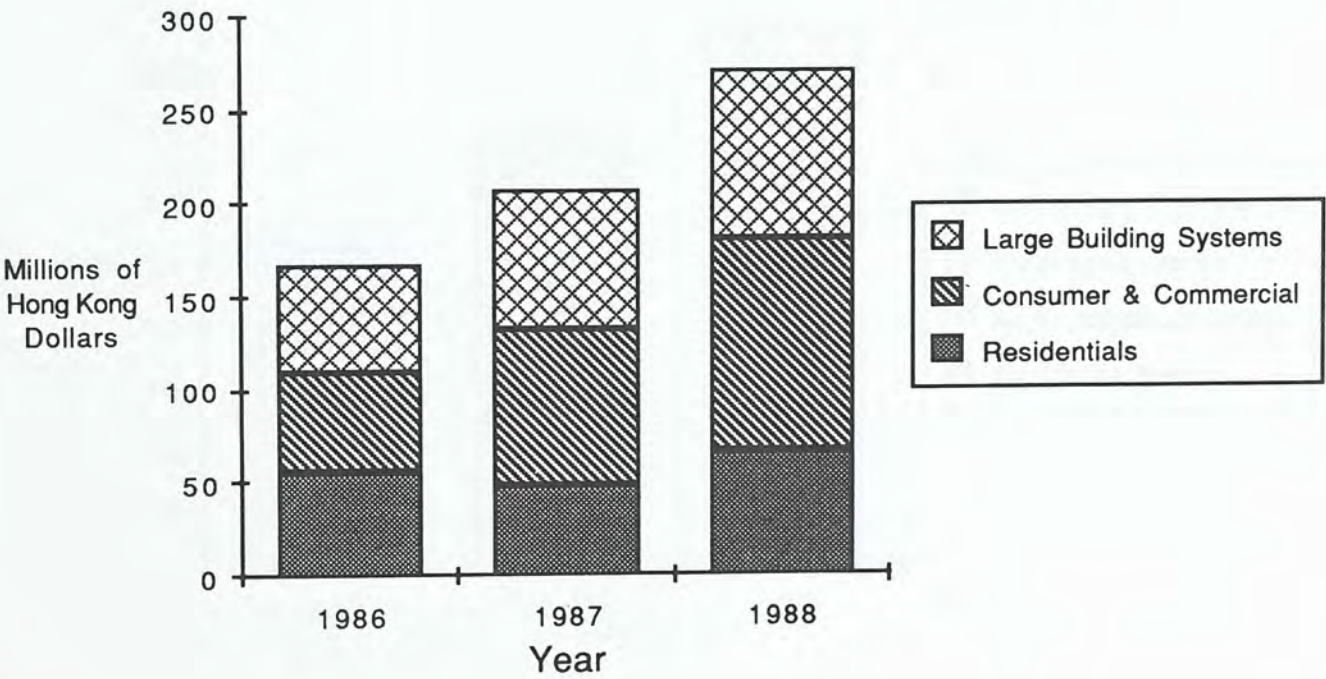
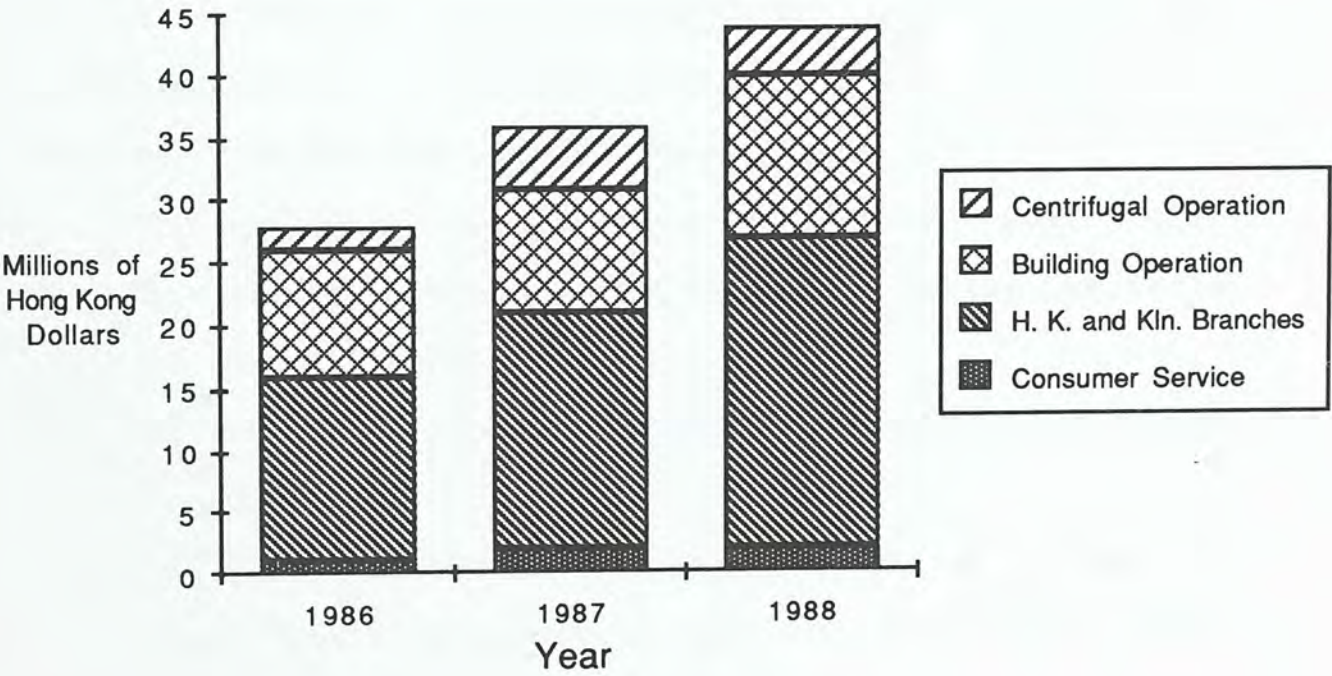


Figure 4

Carrier Hong Kong's Service Contractual Customers Sales  
(1986 - 1988)

(In Millions of HK Dollars)

Department	1986		1987		1988	
	Sales	%	Sales	%	Sales	%
Consumer Service	0.9	3%	1.7	5%	1.6	4%
H. K. and Kln. Branches	15.3	54%	19.3	54%	25.4	58%
Building Operation	10.2	36%	9.7	27%	12.6	28%
Centrifugal Operation	2.0	7%	4.9	14%	4.4	10%
	28.4	100%	35.6	100%	44.0	100%





So, this is a desired segment for business expansion, and its customers are of utmost importance to the company. This research aims to investigate this important market segment in order to maximize the results.

#### OBJECTIVES OF THE STUDY

The main decision problem to be addressed is:

"What is the current buyers' satisfaction level with the service which Carrier Hong Kong's service division provides?"

The "buyers" here refer only to the contractual customers within the consumer and commercial package market segment.

Since the buyer evaluates the entirety of service from his own perspective, it is important to find out the Carrier's service and identify his perception of our serviceability. We can define these steps as links with customers in the service delivery system.

The specific research objectives of the research are:

- (1) To identify the links with customers during Carrier's service delivery process.
- (2) To gauge the levels of buyer satisfaction with each link.
- (3) To find out the relative importance of groups of links within the service delivery activities which contribute to buyer satisfaction.
- (4) To measure and compare the level of customer satisfaction with Carrier's and competitors' services, for customers who utilize both.



- 5) To measure the overall customer satisfaction level.

## CHAPTER III

### LITERATURE REVIEW

#### BUYER SATISFACTION

Carrier's policy and mission is

"To achieve definitive market leadership in each segment of our business by:

- o Making customer satisfaction our first priority,  
....."

This statement is probably one of the most popular mission statements among corporations nowadays. The focus on buyers' satisfaction probably stemmed from the economic theory of consumer sovereignty — the determination of what is to be produced should not be in the hands of the companies or in the hands of government but in the hands of the consumer. The companies that can produce what consumers want can earn their profits.<sup>4</sup>

Theodore Levitt argued that a business must be viewed as a customer - satisfying process, not a goods-producing process.<sup>5</sup> Products do not last, while needs and customers

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<sup>4</sup> Philip Kotler, Marketing Management, Prentice Hall, 5th Edition, 1984.

<sup>5</sup> Theodore Levitt, "Marketing Myopia", Harvard Business Review, July 1960.



endure forever. Ted Levitt stated in his The Marketing Imagination,

"All energies should be directed toward satisfying the consumer, no matter what... . The purpose of business is to get and keep a customer, or, to use Peter Drucker's more demanding construction, to create and keep a customer..... . To do that, you have to do these things that will make people want to do business with you. All other truths on this subject are merely derivative." <sup>6</sup>

Derek Abell defined the business domain within a company's mission statement in three dimensions: the customer groups that will be served, the customer needs that will be met, and the technology that will satisfy these needs.<sup>7</sup> This is the basic environment within which all businesses operate.

In his bestseller In Search of Excellence,<sup>8</sup> Tom Peters exemplified "Close to the Customer" as one of the key success factors of the excellent companies. He also stressed that customer satisfaction must be measured frequently, in customers' terms and emphasizing the intangibles. He went on to suggest tying the measurement directly to employees' compensation and performance evaluation.

<sup>6</sup> Theodore Levitt, The Marketing Imagination, The Free Press, 1983.

<sup>7</sup> Derek Abell, Defining the Business: The Starting Point of Strategic Marketing, Englewood Cliffs, N.J.: Prentice Hall, 1980.

<sup>8</sup> Thomas Peters and Robert Waterman, Jr., In Search of Excellence, Harper and Row, 1982.



Some feel that there is a connection between buyer satisfaction and long term sales and market share. In the 1983 ABC (American Business Conference) survey on successful American midsize companies, 58 percent of the respondents said their companies spend "considerably more" on customer service support than their competitors do. Also, companies having relatively higher perceived quality with respect to service have a higher average return on investment than do those with lower perceived quality.<sup>9</sup>

In conclusion, quality service to achieve buyers' satisfaction does pay off.

#### BUYER'S ATTITUDE MODEL AND MEASUREMENTS

According to Krech and Crutchfield<sup>10</sup>, an attitude is an enduring organization of motivational, emotional, perceptual and cognitive processes with respect to some aspect of our environment. Fishbein and Aizen described attitude as "a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object."<sup>11</sup> Thus attitude can be defined as the way we perceive and react toward some aspect of our environment. This is an important focal point of marketing strategy.

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<sup>9</sup> Donald Clifford, Jr. and Richard Cavanagh, The Winning Performance, Bantam, 1985.

<sup>10</sup> D. Krech and R.S. Crutchfield, Theory and Problems in Social Psychology, New York: McGraw-Hill, 1984.

<sup>11</sup> M. Fishbein and I. Aizen, Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research, Reading, Mass., Addison Wesley Publishing, 1975.



Rosenberg and Hovland identified the components of attitude to be: cognitive, affective and behavioural (see FIGURE 5). The cognitive component consists of individual's beliefs or knowledge about the attributes of an object. The cognitive component is generally assessed by using the multiattribute attitude model:

$$A_b = \sum_{i=1}^n W_i B_{ib}$$

where:

$A_b$  = The buyer's attitude toward a particular brand b.

$W_i$  = The importance the buyer attaches to attribute i.

$B_{ib}$  = The buyer's belief about brand b's performance on attribute i.

$n$  = The number of attributes considered.

Feelings or emotional reactions to an object represent the affective components of the attitude. This implies an overall evaluation of the product. The behavioural component reflects overt actions toward the product.

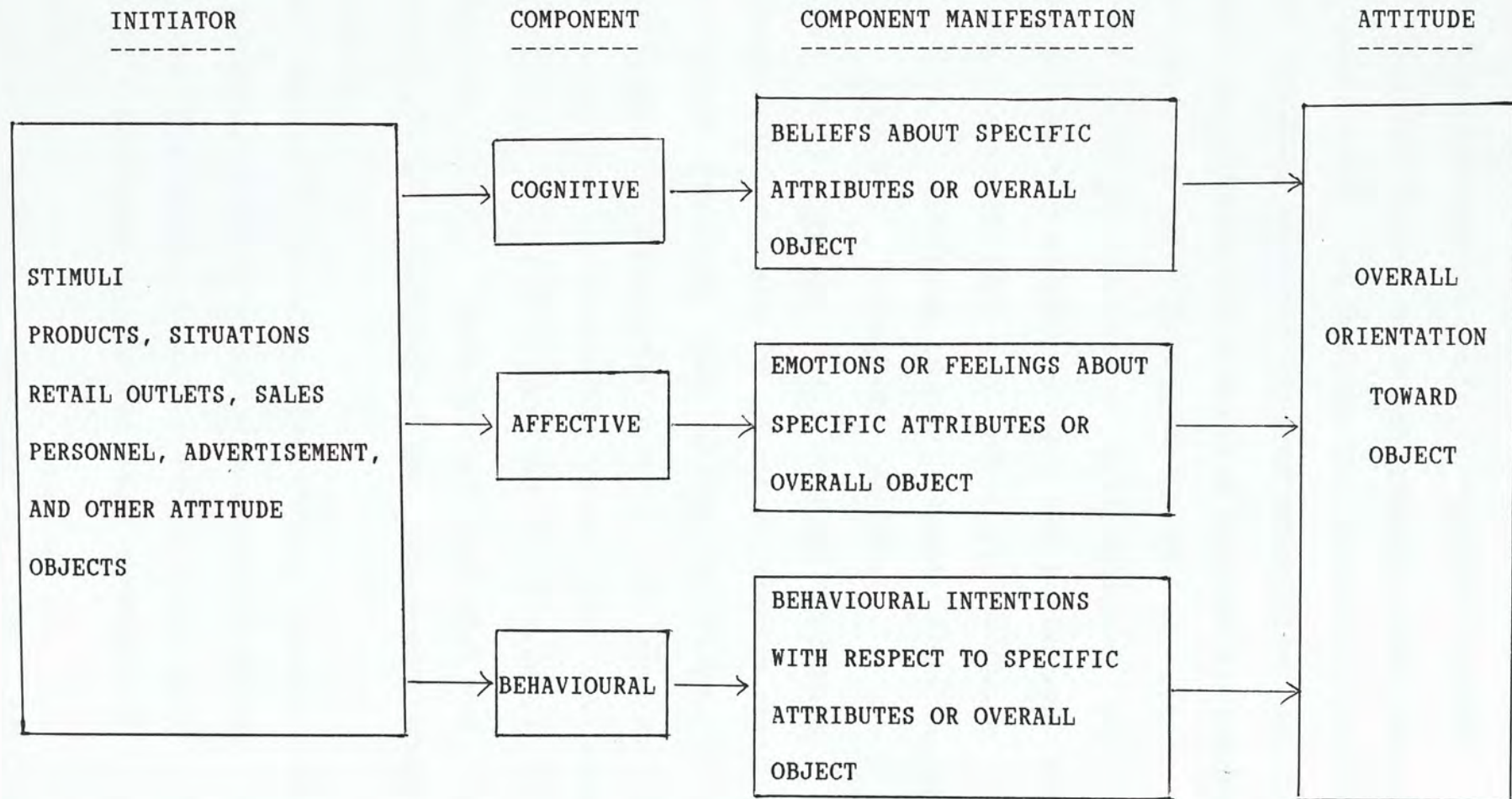
In general, all three components of an attitude tend to be consistent with one another. Marketing professionals have been using various techniques to measure these components and formulate programs to change consumer attitudes toward products and brands.

#### SERVICE MANAGEMENT AND COMPETITIVE ADVANTAGE

In the past, there has not been as much attention given to service quality and management, as compared with

FIGURE 5

ATTITUDE COMPONENTS AND MANIFESTATIONS



SOURCE : ADAPTED FROM J.J.ROSENBERG AND C.I.HOVLAND,

ATTITUDE ORGANIZATION AND CHANGE, NEW HAVEN, CONN.: YALE UNIVERSITY PRESS, 1960



manufacturing. However, managing good service quality can pay off even more because of positive "word-of-mouth".

James Heskett, in his book Managing in the Service Economy,<sup>12</sup> introduced the concept of strategic service vision which includes elements such as identification of a target market, development of a service concept to address targeted customers' needs, formulation of an operating strategy, and putting together a well-designed service delivery system. He has suggested that the perceived risk is higher for services than for physical products and customers are more willing to pay higher than normal prices for properly designed services. Service organizations must choose their target segments to maximize their returns since it is often impractical to provide different products and different levels of service to satisfy every customer segment. He went on to stress the importance of "perceived value" to customers and soliciting customer involvement in the design of the service delivery system. This project has utilized the above concepts in the selection of the customer segment being researched.

Michael Porter<sup>13</sup> has suggested that a company can pursue one of three generic strategies within a market — Cost Leadership, Differentiation, or Focus — in order to perform well. He also introduced the concept of the

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<sup>12</sup> James Heskett, Managing in the Service Economy, Harvard Business School Press, 1986.

<sup>13</sup> Michael Porter, Competitive Advantage, Free Press, 1985.

"value chain". The value chain consists of activities within a firm that are designed to deliver its products or services. Each value activity and its linkages with others are designed to achieve competitive advantage. This research project has adopted the concept of the "value chain" and has applied it to service quality dimensions in the customer satisfaction model.



## CHAPTER IV

### METHODOLOGY

#### METHODOLOGY

The basic research approach of this study is an exploratory and descriptive analysis to assess the buyers' satisfaction level of Carrier Hong Kong's contractual customers in the consumer and commercial package market segment. The study includes a review of secondary sources of information, as well as a survey of individual customers.

The specific research approach used in this study includes a (1) concise statement of the problem, (2) a review of the literature related to service business and buyer satisfaction, (3) an explicit statement of the research design, (4) construction of the questionnaire, (5) collection of primary data from respondents, and (6) an analysis of the survey results and conclusions.

#### GENERAL RESEARCH DESIGN

The general research design is an exploratory and descriptive analysis of customer satisfaction level. Since services are simultaneously produced and consumed, it is essential to find out what links exist with the customers during the service delivery process. The



service links were defined through (1) discussions with various operating units' personnel, (2) review of the operation procedures and the computerized service management information system and (3) interviews with three key customers. In addition to this, a review of the current literature helped to clarify the subject and formulate the service quality concept. The questionnaire technique was designed to cover the wide spectrum of industries within the current customer database. The questionnaire was also written in both English and Chinese to minimize language misunderstanding, as some customers are more fluent in reading Chinese. Questionnaires were first distributed for comments in a pretest with participants from seven major customers. The feedback was evaluated and minor revisions were made. In addition to measuring customer satisfaction level, other marketing and demographic information was included in the survey for marketing development purposes. Questionnaires were then distributed by direct mailing to all contractual customers in the defined market segment. A serial number was assigned to each customer and the corresponding prepaid return envelope to enable telephone follow-ups to increase the response rate of the questionnaires.

The questionnaire, together with the cover letter, is shown in Appendix I.

The collected data were fed into a personal computer database and various analyses were done. Simple descriptive statistics were all that were needed to analyze the data.



### QUESTIONNAIRE DESIGN

The objective of the questionnaire is to measure the level of buyers' satisfaction. There have been many research efforts on customer satisfaction and the general agreement is that satisfaction is the difference between expectation and perceived performance. If expectation is greater than perceived performance, dissatisfaction arises; if perceived performance is greater than expectation, satisfaction arises. The concepts of satisfaction and dissatisfaction are often seen as the opposite ends of a continuous scale (Handy and Pfaff):

By assigning a set of numbers to the various points of the satisfaction scale, we can compute average satisfaction response by all respondents, for each question.<sup>3</sup>

The questionnaire thus developed utilizes a ten-point scale; the higher the score for a particular attribute, the higher the level of satisfaction. This is particularly demanding since many people view "10" as a perfect score; also this enables continuous measurements year after year. Every point on each attribute means something.

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<sup>3</sup> Handy, Charles R. and Martin Pfaff, "Consumer Satisfaction with Food Products and Marketing Services", Economic Research Service, U.S. Department of Agriculture - Agricultural Economic Report No. 281, 1975.



Importance rankings are also incorporated into the questionnaire to assess customer attitudes. However, the rankings are only asked for each group of attributes - sales interactions, delivery and performance, service and support, and order processing and invoicing. This is to avoid tedious questions asked for each individual attribute. A ten-point scale is also adopted for importance ranking. The formula is derived from the multiattribute attitude model, described in the previous section.

It is possible to come up with a satisfaction index ( $\sum$  (level of satisfaction with each group of attributes) X (importance ranking)). This formula is derived from the multiattribute attitude model, described in the previous section. However, an overall satisfaction rating is necessary and important since customers may have some attitudes towards the company which may be different from the attribute ratings.

As for competitors' comparative measurements, they are performed both on an attribute group basis and overall basis.

Also, spaces are provided for customers to fill in their comments. The questionnaire also allows them to specify if they want their comments to be forwarded individually. The supplementary page on "other information" is designed in a way to collect specific information so that analysis can be done for marketing purposes.



## CHAPTER V

### IDENTIFICATION OF CARRIER'S SERVICE LINKS WITH CUSTOMERS

Before a customer satisfaction survey can be performed, it is necessary to first identify all the service links with customers. The links are not limited to actual interactions but also the intangible attributes of service such as the image appeared to customers. A series of interviews were conducted with key customers, service managers, salesmen and operations staff; these interviewees each have an average of more than ten years of air conditioning service experience. A review of the paperwork flows and the computerized dispatch, quotation and invoicing systems was also performed to understand the process of delivering the service.

Utilizing Michael Porter's "value chain" concept, a model of customer satisfaction was developed, as illustrated in FIGURE 6. The detailed links with the customer under each group of value activities are:

#### (A) Sales Interactions

- availability of sales representatives to customers;
- understanding of customer's needs;
- making useful and appropriate recommendations to

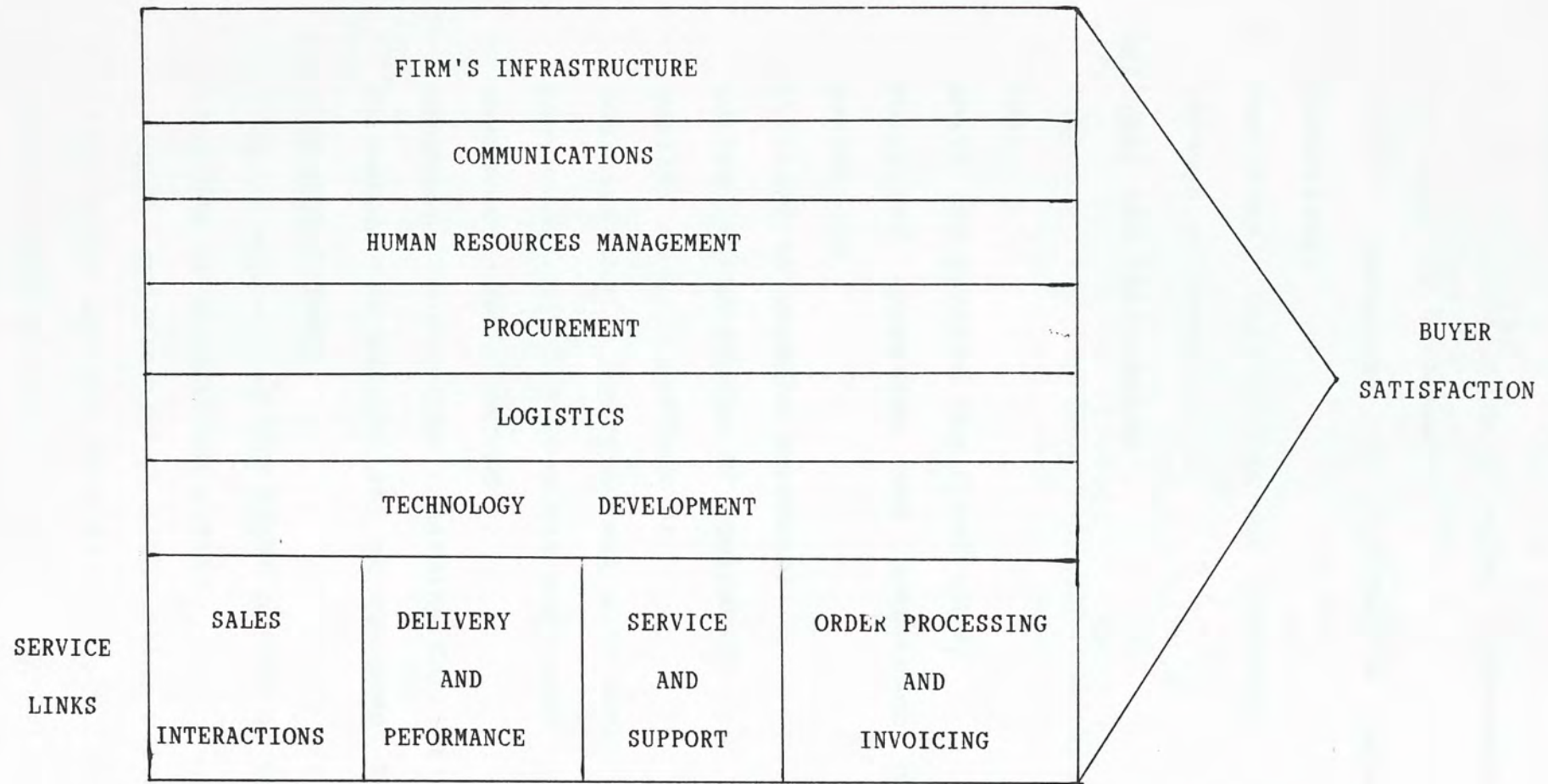


FIGURE 6 BUYER SATISFACTION MODEL



customers;

- technical knowledge of sales representatives as perceived by customers;
- timely responses to customer's requests for quotations;
- customers' perceptions of Carrier's following through on commitments.

(B) Delivery and Performance

- response to customer's problem within promised time;
- solve the problem the first time;
- perceived expertise and competence of service personnel;
- attitude of service personnel;
- advise on the status of equipment;
- quality of work performed;
- coordination in carrying out site work;
- leave customer's site clean and tidy;
- emergency repair services;
- consumers' perception regarding Carrier's ability to reduce the possibility of equipment breakdown.

(C) Service and Support

- ease of contacting the right person at Carrier;
- attitude of supporting staff;
- accuracy and clarity of diagnostics reports;
- after-sales service levels;
- availability of parts;
- demonstration of equipment application;

- perception that Carrier is the customer's business partner.

(D) Order Processing and Invoicing

- clarity of terms and scope of work of contracts;
- accurate processing of orders and changes;
- timely delivery of invoices;
- clarity of invoice contents;
- accuracy of invoice amounts.

A questionnaire was developed to measure customers' satisfaction levels with each service link described above.



## CHAPTER VI

### ANALYSIS OF SURVEY RESULTS

#### LIMITATIONS OF THE STUDY

The number of responses (a total of 103) represented 34 percent of the total population (a total of 302 questionnaires were sent out). In order to assure that the external validity of the results will not be seriously affected by the different sizes of installations, a detailed investigation into the 1988 customer sales records was performed. It revealed that these 103 customers constituted about 46 percent of the consumer and commercial package contractual service sales for 1988. This is a result of the concentrated effort to get feedback from larger size customers.

The generalization of the findings may be limited by the response rate. However, since perception of service is a very subjective evaluation, the results at least provided an indication of the existing satisfaction level of Carrier's contractual customers in the consumer and commercial segment.

PROFILE OF SURVEY RESPONSES

TABLE 2 summarizes the profile of the responses by industry categories. It can be seen that 51 percent of the customers fell into the general office and factory categories.

TABLE 2

Profile of Survey Respondents  
(By Industry Category)

Industry Category	Absolute Frequency	% of Occurrence
General Office	33	32
Factory	20	19
Restaurant/Shop/Chain-Store	16	15
Bank	9	9
Transportation	5	5
Property Management Company	5	5
Hotel	4	4
Recreational Club	4	4
School	4	4
Government	3	3
TOTAL	103 =====	100% =====



Ninety respondents answered the question regarding how long they have been using Carrier's services (TABLE 3). The average response was 6.4 years.

TABLE 3

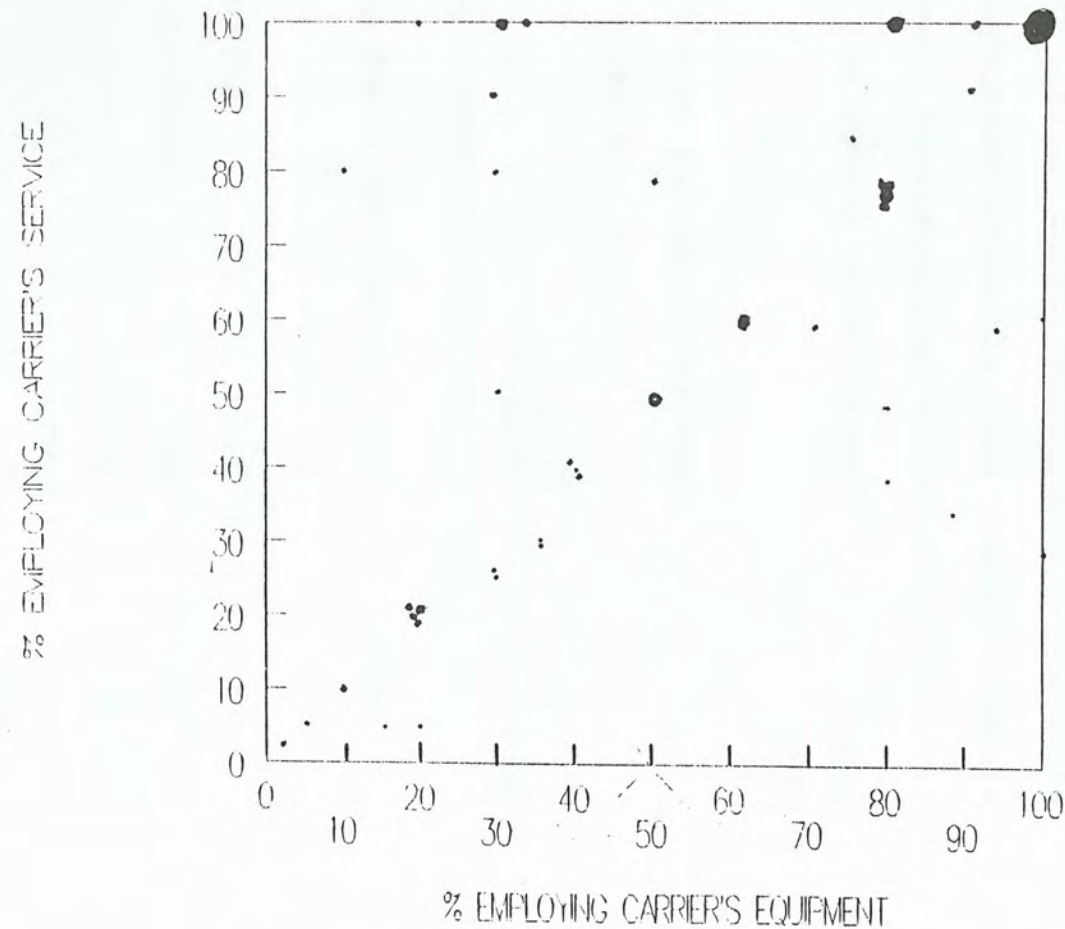
Profile of Survey Respondents  
(By Years of Using Carrier's Services)

Years (n) of Using Carrier's Services	Absolute Frequency	% of Occurrence
n < 1 year	17	19
1 ≤ n < 5 years	38	42
5 ≤ n < 10 years	11	12
n ≥ 10 years	24	27
TOTAL	90 =====	100% =====

Seventy-nine respondents replied on the percentage of Carrier equipment in their air conditioning installations, with a mean of 66 percent. These same seventy-nine respondents also replied on the percentage of air conditioning service or maintenance work using Carrier, yielding an average of 72 percent. There appears to be a positive correlation between the installation of Carrier's equipment and the use of Carrier's service as indicated in FIGURE 7.

FIGURE 7

# CORRELATIONSHIP BETWEEN EMPLOYING CARRIER'S EQUIPMENT AND SERVICE





Respondents were asked to project their air conditioning service budget increase for 1990, as compared to that of 1989. The mean response as reported by fifty-one respondents, was 12.5 percent increase in budget. It can be assumed that for existing installations, the buyers expect price increases to be similar to inflation rates.

TABLE 4 describes the respondents by their respective job functions. The majority of them belong to the general administration group. It is likely that these respondents are not technically-oriented people, but rather people with commercial sense. The perceived value of service is more important than the actual value itself.

TABLE 4  
Profile of Survey Respondents  
(By Job Function)

Job Function	Absolute Frequency	% of Occurrence
Maintenance and Field Service	19	20
Purchasing	2	2
Property Management	13	14
General Administration	58	62
Others - Sales	2	2
	<hr/>	<hr/>
TOTAL	94 =====	100% =====

Out of the 103 respondents, sixty-six indicated that they have had some previous experience with Carrier's competitors.

### SUMMARY OF SURVEY RESULTS

Based on the survey, Carrier's service division scored a mean of 6.97 (on a 10-point scale) on "overall satisfaction"; it is better than competitors' score of 6.42. If we divide the scale of the 10-point scale into:-

mean $\leq$ 2	Very Dissatisfied
2 < mean $\leq$ 4	Dissatisfied
4 < mean $\leq$ 6	Neither dissatisfied nor satisfied
6 < mean $\leq$ 8	Satisfied
8 < mean $\leq$ 10	Very Satisfied

It can be said that Carrier's service contractual customers in the consumer and commercial segment are satisfied with Carrier's overall service. Also, it is noted that Carrier's service scored higher than competitors' in every category of attributes as well.

Out of the four groups of attributes, customers have rated service and support as the most important one, followed by delivery and performance, sales interactions, and order processing and invoicing.

Using the multiattribute attitude model, a satisfaction index is calculated based on the summation of (level of satisfaction with each group of attributes) times (importance ranking). For Carrier's service, the calculated satisfaction index is 6.95, very close to the 6.97 rated by customers; for competitors' service, the calculated satisfaction index is 6.48, also close to the 6.42 rated by customers. This consistency reflects the relationship between the cognitive and affective



components of Rosenberg's attitude model. Also, it is a good indication of reliability of measuring instrument.

The results of the survey are summarized in TABLE 5.

TABLE 5  
Summary of Survey Results

Items	Importance		Arithmetic Mean of Buyers' Satisfaction Ratings	
	Rating	%	Carrier's	Competitors'
Sales Interactions	7.72	24.0%	6.54	6.34
Delivery and Performance	8.15	25.3%	6.96	6.39
Service and Support	8.64	26.8%	6.69	6.38
Order Processing and Invoicing	7.71	23.9%	7.20	6.75
Overall Satisfaction				
- Rated By Customers			6.97	6.42
- Calculated Index	32.22	100%	6.95	6.48

The importance ratings have been converted from the ten-point scale to a percentage (by dividing the group's average importance rating over the total sum of importances for the four groups) so that each group of attributes is relative to one another and this facilitates the computation of the buyer satisfaction index using the multiattribute model. The distributions of importances are illustrated in FIGURE 8 to FIGURE 11.

Figure 8  
\*\*\* Importance Rating \*\*\*  
Sales Interactions

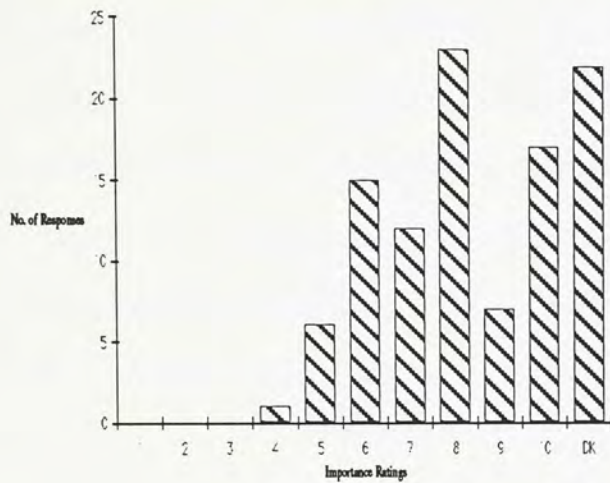


Figure 9  
\*\*\* Importance Rating \*\*\*  
Delivery and Performance

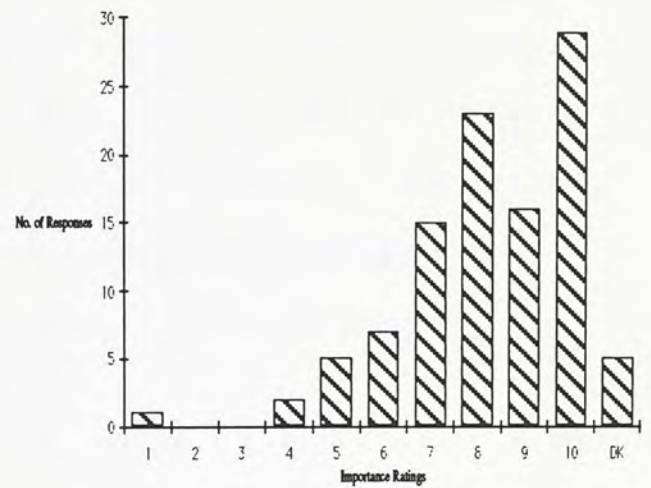


Figure 10  
\*\*\* Importance Rating \*\*\*  
Service and Support

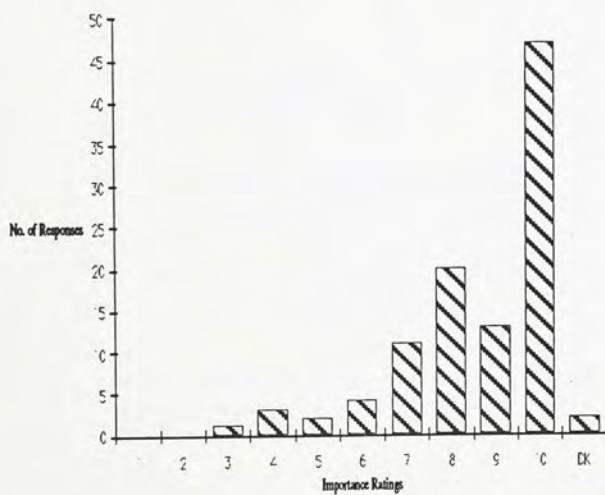
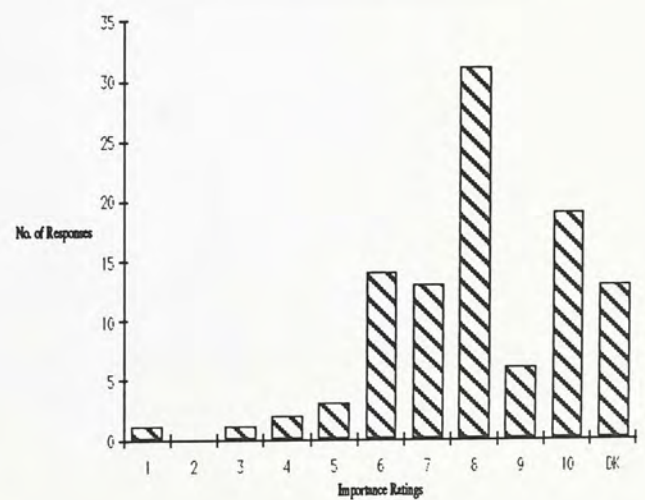


Figure 11  
\*\*\* Importance Rating \*\*\*  
Order Processing and Invoicing





### SALES INTERACTIONS

In this section, Carrier's service scored a satisfaction rating mean of 6.54, as compared with competitors' 6.34. This score is the lowest among the four groups of links before taking into consideration the importance weighting factor. None of the links within this group scored an average above the overall satisfaction mean of 6.97. The respective means of buyers' satisfaction ratings for links in this group are listed in TABLE 6, in ascending order. In this way, we can highlight the weaker links first.

TABLE 6  
Sales Interactions  
Satisfaction Ratings

Links with Customers	Arithmetic Mean of Buyers' Satisfaction
1. Following through on Commitments	6.33
2. Making Useful and Appropriate Recommendations	6.35
3. Timely Response to Requests for Quotations	6.52
4. Technical Knowledge of Sales Representatives	6.57
5. Availability of Sales Representatives	6.63
6. Understanding of Your Needs	6.74

### DELIVERY AND PERFORMANCE

For delivery and performance, Carrier's service scored a satisfaction rating mean of 6.96, as compared with competitors' 6.39. In this section, Carrier scored the highest differential from competitors among the four groups of links. However, the score on "Solve the Problem the First Time" is the second lowest score among all links surveyed. The respective means of buyers' satisfaction ratings for links in this group are listed in TABLE 7, in ascending order.

TABLE 7  
Delivery and Performance  
Satisfaction Ratings

Links with Customers	Arithmetic Mean of Buyers' Satisfaction
1. Solve the Problem the First Time	6.21
2. Carrier Service reduces the Possibility of Equipment Breakdown	6.51
3. Ability of Emergency Repair Services	6.53
4. Leave Your Site Clean and Tidy	6.72
5. Response to Problem within Promised Time	6.73
6. Advise You on the Status of Equipment	6.94
7. Expertise and Competence of Service Personnel	6.95
8. Coordination in Carrying Out Site Work	6.96
9. Quality of Work Performed	6.97
10. Attitude of Service Personnel	7.40



### SERVICE AND SUPPORT

In this section, Carrier's service scored a satisfaction rating mean of 6.69, as compared with competitors' 6.38. Customers gave the highest importance rating to this group of links, but the score of this section is the lowest among all four groups of attributes after considering the importance weighting factor.

The score on "Carrier is Your Business Partner" is the lowest among all links surveyed. The respective means of buyers' satisfaction ratings for links in this group are shown in TABLE 8, in ascending order.

TABLE 8  
Service and Support  
Satisfaction Ratings

Links with Customers	Arithmetic Mean of Buyers' Satisfaction
1. Carrier is Your Business Partner	6.07
2. Demonstrates Equipment Application to You	6.33
3. Provides Good After-Sales Service Levels	6.46
4. Availability of Parts	6.48
5. Accuracy and Clarity of Diagnostics Reports	6.88
6. Attitude of Supporting Staff	6.96
7. Ease of Contacting the Right Person in Carrier	6.98

### ORDER PROCESSING AND INVOICING

In this section, Carrier's service scored a satisfaction rating mean of 7.20, as compared with competitors' 6.75. This is the highest score but the least important among all four groups of service links. However, the score on "Accurate Processing of Orders and Changes" is below the overall satisfaction mean of 6.97. The respective means of buyers' satisfaction ratings for links in this group are shown in TABLE 9, in ascending order.

TABLE 9  
Order Processing and Invoicing  
Satisfaction Ratings

Links with Customers	Arithmetic Mean of Buyers' Satisfaction
1. Accurate Processing of Orders and Changes	6.70
2. Timely Delivery of Invoices	7.01
3. Clarity of Terms and Scope of Work of Contracts	7.07
4. Clarity of Invoice Contents	7.09
5. Accuracy of Invoices	7.21



## CHAPTER VII

### CONCLUSIONS AND RECOMMENDATIONS

Based on the survey results, it can be concluded that current contractual buyers in the consumer and commercial package market segment are generally satisfied with the service levels which Carrier Hong Kong's service division provides. However, the results also showed that Carrier's lead on satisfaction rating over its competitors is very narrow and insignificant. Also, customers seem to place more emphasis on the importance of the more intangible aspects of the business — the links within the "Service and Support" section. The wide distribution of the results also raises the question as to whether there are any standards for service levels by which the sales and operations people should adhere.

Although there does not seem to be any immediate crisis with respect to customer confidence and satisfaction levels, it is advisable to examine and improve the current service levels according to the survey results in order to increase Carrier's long-term competitiveness. The links are ranked in TABLE 10 according to the survey's customer satisfaction ratings in ascending order — the lower the rating of the link, the weaker it is. Since it is impractical to improve all

TABLE 10

## SERVICE LINKS - SATISFACTION RATINGS

( WITHOUT WEIGHTINGS )

LINKS TO CUSTOMERS	ARITHMETIC MEANS OF BUYERS' SATISFACTION
CARRIER IS YOUR BUSINESS PARTNER	6.07
SOLVE THE PROBLEM THE FIRST TIME	6.21
DEMONSTRATE EQUIPMENT APPLICATION TO YOU	6.33
FOLLOWING THROUGH COMMITMENTS	6.33
MAKING USEFUL AND APPROPRIATE RECOMMENDATIONS	6.35
PROVIDES GOOD AFTER-SALES SERVICE LEVELS	6.46
AVAILABILITY OF PARTS	6.48
CARRIER SERVICE REDUCES THE POSSIBILITY OF EQUIPMENT BREAKDOWN	6.51
TIMELY RESPONSE TO REQUESTS FOR QUOTATIONS	6.52
ABILITY OF EMERGENCY REPAIR SERVICES	6.53
TECHNICAL KNOWLEDGE OF SALES REPRESENTATIVES	6.57
AVAILABILITY OF SALES REPRESENTATIVES	6.63
ACCURATE PROCESSING OF ORDERS AND CHANGES	6.7
LEAVE YOUR SITE CLEAN AND TIDY	6.72
RESPONSE TO PROBLEM WITHIN PROMISED TIME	6.73
UNDERSTANDING OF YOUR NEEDS	6.74
ACCURACY AND CLARITY OF DIAGNOSTICS REPORTS	6.88
ADVISE YOU THE STATUS OF EQUIPMENTS PROBLEM	6.94
EXPERTISE AND COMPETENCE OF SERVICE PERSONNEL	6.95
COORDINATION ON CARRYING OUT SITE WORK	6.96
ATTITUDE OF SUPPORTING STAFF	6.96
QUALITY OF WORK PERFORMED	6.97
EASE OF CONTACTING THE RIGHT PERSON IN CARRIER	6.98
TIMELY DELIVERY OF INVOICES	7.01
CLARITY OF TERMS AND SCOPE OF WORK OF CONTRACTS	7.07
CLARITY OF INVOICE CLARITY TO YOU	7.09
ACCURACY OF INVOICE AMOUNTS	7.21
ATTITUDE OF SERVICE PERSONNEL	7.4



links at the same time, the weaker links should warrant attention first. Furthermore, since customers assigned different importance ratings to each group of attributes, it may be more worthwhile to improve them according to the weighted sequence in TABLE 11 in order to maximize results.

For each link, it is necessary to identify all the possible errors that may lead to dissatisfaction and their significances. To eliminate the errors, one must analyze the causes and ask key participants in the service delivery process to suggest solutions. Usually causes are multiple but they can be grouped into major categories, i.e. communications, human resources management, procurement, logistics and technology development (refer to Buyer Satisfaction Model in FIGURE 6). There must be a common perspective for judging the factors which may have contributed to the error under analysis, rather than a dispersed view, as a result of each one's perceptions and interests. After finding the possible causes of error, it is necessary to list all the alternatives to solve the problem. For every solution, there is a cost involved; it is essential to select the most cost-effective way for implementation.

It is inevitable that the service market will grow in the coming years. However, the shortage of labour will be a constraint in expanding the size of the service division; it is wiser for Carrier to pursue a differentiation strategy to focus on the more profitable

TABLE 11

## SERVICE LINKS - SATISFACTION RATINGS

( WITH WEIGHTING )

LINKS TO CUSTOMERS	ARITHMETIC MEANS		WEIGHTED INDICES
	OF BUYERS' SATISFACTION	IMPORTANCE	
CARRIER IS YOUR BUSINESS PARTNER	6.07	0.268	22.65
DEMONSTRATE EQUIPMENT APPLICATION TO YOU	6.33	0.268	23.62
PROVIDES GOOD AFTER-SALES SERVICE LEVELS	6.46	0.268	24.10
AVAILABILITY OF PARTS	6.48	0.268	24.18
SOLVE THE PROBLEM THE FIRST TIME	6.21	0.253	24.55
ACCURACY AND CLARITY OF DIAGNOSTICS REPORTS	6.88	0.268	25.67
CARRIER SERVICE REDUCES THE POSSIBILITY OF EQUIPMENT BREAKDOWN	6.51	0.253	25.73
ABILITY OF EMERGENCY REPAIR SERVICES	6.53	0.253	25.81
ATTITUDE OF SUPPORTING STAFF	6.96	0.268	25.97
EASE OF CONTACTING THE RIGHT PERSON IN CARRIER	6.98	0.268	26.04
FOLLOWING THROUGH ON COMMITMENTS	6.33	0.24	26.38
MAKING USEFUL AND APPROPRIATE RECOMMENDATIONS	6.35	0.24	26.46
LEAVE YOUR SITE CLEAN AND TIDY	6.72	0.253	26.56
RESPONSE TO PROBLEM WITHIN PROMISED TIME	6.73	0.253	26.60
TIMELY RESPONSE TO REQUESTS FOR QUOTATIONS	6.52	0.24	27.17
TECHNICAL KNOWLEDGE OF SALES REPRESENTATIVES	6.57	0.24	27.38
ADVISE YOU THE STATUS OF EQUIPMENT'S PROBLEM	6.94	0.253	27.43
EXPERTISE AND COMPETENCE OF SERVICE PERSONNEL	6.95	0.253	27.47
COORDINATION ON CARRYING OUT SITE WORK	6.96	0.253	27.51
QUALITY OF WORK PERFORMED	6.97	0.253	27.55
AVAILABILITY OF SALES REPRESENTATIVES	6.63	0.24	27.63
ACCURATE PROCESSING OF ORDERS AND CHANGES	6.7	0.239	28.03
UNDERSTANDING OF YOUR NEEDS	6.74	0.24	28.08
ATTITUDE OF SERVICE PERSONNEL	7.4	0.253	29.25
TIMELY DELIVERY OF INVOICES	7.01	0.239	29.33
CLARITY OF TERMS AND SCOPE OF WORK OF CONTRACTS	7.07	0.239	29.58
CLARITY OF INVOICE CONTENTS TO YOU	7.09	0.239	29.67
ACCURACY OF INVOICE AMOUNTS	7.21	0.239	30.17



customers. Setting a clear and measurable service standard for each link within the service delivery system will be a useful tool to achieve superior buyer satisfaction.

It is important that a survey similar to this research project (i.e., an audit) be conducted at least annually in order to measure the progress of improvements.

# APPENDIX I

## QUESTIONNAIRE



Our Ref:

Your Ref:

February 20, 1989

Dear Customer,

Firstly, on behalf of Carrier Hong Kong Limited, I sincerely thank you very much for using Carrier service and maintenance.

Carrier's servicing team has been established in Hong Kong for many years to provide different types of air-conditioning service and maintenance for various industries. Within recent years, we have been trying to improve our service quality in order to upgrade the customer satisfaction level. In fact, it is our company's priority and goal to achieve Customer Satisfaction.

In order to achieve this goal, your valuable opinion is very important to us. Attached please find 2 copies (English version and Chinese version) of the Customer Satisfaction Survey Questionnaire. We hope you can give us your modest comments on our existing service, and hence, we can make more improvements.


Kindly please complete one copy of the questionnaire (either English or Chinese) and return to the Marketing Department, Carrier Hong Kong Limited, in the return envelope.

Thank you in advance and we look forward to serving you better!

Yours faithfully,  
For and on behalf of  
CARRIER HONG KONG LIMITED

JAMES NG  
SENIOR MANAGER

JN/mw

The Carrier logo, featuring the word "Carrier" in a stylized, italicized serif font, enclosed within a dark oval.

1989

## CUSTOMER SATISFACTION

## SURVEY

## QUESTIONNAIRE

- CARRIER'S SERVICE -



## SALES INTERACTIONS

*Please circle the number that best indicates your satisfaction level with Carrier*

	Satisfaction with Carrier's Performance										
	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1. Availability of sales reps.	1	2	3	4	5	6	7	8	9	10	DK
2. Understanding of your needs	1	2	3	4	5	6	7	8	9	10	DK
3. Making useful and appropriate recommendations	1	2	3	4	5	6	7	8	9	10	DK
4. Technical knowledge of sales reps.	1	2	3	4	5	6	7	8	9	10	DK
5. Timely response to requests for quotations	1	2	3	4	5	6	7	8	9	10	DK
6. Following through on commitments	1	2	3	4	5	6	7	8	9	10	DK

### OVERALL SATISFACTION WITH CARRIER'S SALES INTERACTIONS

<u>Very Dissatisfied</u>	<u>Very Satisfied</u>	<u>Don't Know</u>
1   2   3   4   5   6   7   8   9   10		DK

Have you had any experience with Carrier's Competitors ?

Yes ☐

No ☐

If Yes,

### SATISFACTION WITH CARRIER'S COMPETITORS' SALES INTERACTIONS

<u>Very Dissatisfied</u>	<u>Very Satisfied</u>	<u>Don't Know</u>
1   2   3   4   5   6   7   8   9   10		DK

## DELIVERY AND PERFORMANCE

*Please circle the number that best indicates your satisfaction level with Carrier*

	Satisfaction with Carrier's Performance										
	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1. Response to problem within promised time	1	2	3	4	5	6	7	8	9	10	DK
2. Solve the problem the first time	1	2	3	4	5	6	7	8	9	10	DK
3. Expertise and competence of service personnel	1	2	3	4	5	6	7	8	9	10	DK
4. Attitude of service personnel	1	2	3	4	5	6	7	8	9	10	DK
5. Advise you on the status of equipment	1	2	3	4	5	6	7	8	9	10	DK
6. Quality of work performed	1	2	3	4	5	6	7	8	9	10	DK
7. Coordination in carrying out site work (i.e., timing and spacing)	1	2	3	4	5	6	7	8	9	10	DK
8. Leave your site clean and tidy	1	2	3	4	5	6	7	8	9	10	DK
9. Ability of emergency repair services	1	2	3	4	5	6	7	8	9	10	DK
10. Carrier service reduces the possibility of equipment break down	1	2	3	4	5	6	7	8	9	10	DK

### OVERALL SATISFACTION WITH CARRIER'S DELIVERY AND PERFORMANCE

<u>Very Dissatisfied</u>	<u>Very Satisfied</u>	<u>Don't Know</u>
1   2   3   4   5   6   7   8   9   10		DK

Have you had any experience with Carrier's Competitors ?

Yes ☐

No ☐

If Yes,

### SATISFACTION WITH CARRIER'S COMPETITORS' DELIVERY AND PERFORMANCE

<u>Very Dissatisfied</u>	<u>Very Satisfied</u>	<u>Don't Know</u>
1   2   3   4   5   6   7   8   9   10		DK



SERVICE AND SUPPORT

Please circle the number that best indicates your satisfaction level with Carrier

Carrier	Satisfaction with Carrier's Performance										Don't Know
	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					
1. Ease of contacting the right person at Carrier	1	2	3	4	5	6	7	8	9	10	DK
2. Attitude of supporting staff ( e.g., hot-line operator )	1	2	3	4	5	6	7	8	9	10	DK
3. Accuracy and clarity of diagnostics reports	1	2	3	4	5	6	7	8	9	10	DK
4. Provides good after-sales service levels (e.g., recommendations on improvement )	1	2	3	4	5	6	7	8	9	10	DK
5. Availability of parts	1	2	3	4	5	6	7	8	9	10	DK
6. Demonstrate equipment application to you	1	2	3	4	5	6	7	8	9	10	DK
7. Carrier is your business partner	1	2	3	4	5	6	7	8	9	10	DK

OVERALL SATISFACTION WITH CARRIER'S SERVICE AND SUPPORT

<u>Very Dissatisfied</u>											<u>Very Satisfied</u>	<u>Don't Know</u>
1	2	3	4	5	6	7	8	9	10			DK

Have you had any experience with Carrier's Competitors ? Yes ☐ No ☐

If Yes,

SATISFACTION WITH CARRIER'S COMPETITORS' SERVICE AND SUPPORT

<u>Very Dissatisfied</u>											<u>Very Satisfied</u>	<u>Don't Know</u>
1	2	3	4	5	6	7	8	9	10			DK

ORDER PROCESSING AND INVOICING

Please circle the number that best indicates your satisfaction level with Carrier

Carrier	Satisfaction with Carrier's Performance										
	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1. Clarity of terms and scope of work of contracts	1	2	3	4	5	6	7	8	9	10	DK
2. Accurate processing of orders and changes	1	2	3	4	5	6	7	8	9	10	DK
3. Timely delivery of invoices	1	2	3	4	5	6	7	8	9	10	DK
4. Clarity of invoice content to you	1	2	3	4	5	6	7	8	9	10	DK
5. Accuracy of invoice amounts	1	2	3	4	5	6	7	8	9	10	DK

OVERALL SATISFACTION WITH CARRIER'S ORDER PROCESSING AND INVOICING

<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1	2	3	4	5	6	7	8	9	10	DK

Have you had any experience with Carrier's Competitors ? Yes ☐ No ☐

If Yes,

SATISFACTION WITH CARRIER'S COMPETITORS' ORDER PROCESSING AND INVOICING

<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1	2	3	4	5	6	7	8	9	10	DK



IMPORTANCE RATING

*Please circle the number that best reflects the importance of each of these service areas to you*

	Importance of Area									
	<u>Not at all Important</u>					<u>Extremely Important</u>				
1. Sales interactions	1	2	3	4	5	6	7	8	9	10
2. Delivery and Performance	1	2	3	4	5	6	7	8	9	10
3. Service and Support	1	2	3	4	5	6	7	8	9	10
4. Order Processing and Invoicing	1	2	3	4	5	6	7	8	9	10

OVERALL SATISFACTION

*Please circle the number that best indicates your satisfaction level with Carrier*

Carrier	Satisfaction with Carrier's Performance										
	<u>Very Dissatisfied</u>					<u>Very Satisfied</u>					<u>Don't Know</u>
1. Overall satisfaction with Carrier's performance	1	2	3	4	5	6	7	8	9	10	DK
2. Overall satisfaction with Carrier's Competitors' performance	1	2	3	4	5	6	7	8	9	10	DK

Please comment on any aspects of our services so that we can serve you better :



OTHER INFORMATION
-------------------

1. Please check the industry category which best describes your facilities :

- ☐ Hotel
- ☐ Resturant / Shops / Chain-Store
- ☐ Factory
- ☐ Bank
- ☐ School / Education Centre
- ☐ Transportation
- ☐ Cinema / Entertainment Centre
- ☐ Other ( please specify \_\_\_\_\_ )

2. How long have you been using Carrier services ? \_\_\_\_\_ years \_\_\_\_\_ months

3. What percentage of your air conditioning installations are Carrier equipment ? \_\_\_\_\_ %

4. What is your annual air conditioning service budget ? HK\$ \_\_\_\_\_ / annum

5. What is your projected air conditioning service budget increase in 1990 compared with 1989 ? \_\_\_\_\_ % growth

6. What percentage of your total air-conditioning service or maintenance work employs Carrier service ? \_\_\_\_\_ %

7. In which department do you work ?

- ☐ Maintenance and field service
- ☐ Purchase department
- ☐ Property management
- ☐ General adminstration
- ☐ Other ( please specify \_\_\_\_\_ )

We would like to forward the summary of results to the appropriate managers who serve your organization; however, they will be kept confidential and used only by our marketing department for statistical summary and analysis, unless you check here.

☐ Please forward our reply to the appropriate managers.

Name : \_\_\_\_\_ Telephone : \_\_\_\_\_

Company Name : \_\_\_\_\_

Thank you for your cooperation. Please complete the questionnaire and return to Carrier in the return envelope.

Return Address : Carrier Hong Kong Limited  
2/F, 1-7 Shing Chuen Road,  
Tai Wai, Shatin,  
N. T. Hong Kong



親愛的顧客：

首先，我謹代表開利(香港)有限公司多謝您僱用我們的空調維修服務。

開利的維修服務隊伍在港成立已有多年，一直以來，都為各行各業提供不同類型的冷氣維修服務。近年來，我們不斷致力改善我們的服務質素，以提高顧客的滿意水平。我們更以達致『顧客滿意』為首要任務及目標。

誠然，要達到這個目標，您的寶貴意見是不可缺少的。隨函附上兩份(中文版及英文版)有關開利維修服務的問卷，希望您對開利的服務作出中肯的評價，使我們可以作出更大的改善。

請將問卷其一(中文或英文)填妥，並用附上的回郵信封寄回開利(香港)有限公司；市場策劃部收。

在此預先多謝您的寶貴意見。

此致

開利(香港)有限公司

伍永耀  
高級經理



開利(香港)有限公司

1989顧客滿意程度

開利維修服務

調查問卷



請把最能表達你對  
開利的滿意程度的  
號碼圈出來

對開利表現的滿意程度

	<u>非常不滿</u>										<u>非常滿意</u>	<u>不知道</u>
1. 容易接觸到營業代表	1	2	3	4	5	6	7	8	9	10		DK
2. 了解你的需要	1	2	3	4	5	6	7	8	9	10		DK
3. 提供有用及適當的意見	1	2	3	4	5	6	7	8	9	10		DK
4. 營業代表的技術知識	1	2	3	4	5	6	7	8	9	10		DK
5. 對要求報價的迅速回應	1	2	3	4	5	6	7	8	9	10		DK
6. 認真地跟催所許下的承諾	1	2	3	4	5	6	7	8	9	10		DK

整体上對開利銷售時的多項服務的滿意程度

非常不滿意

非常滿意 不知道

1 2 3 4 5 6 7 8 9 10 DK

你曾否與開利的競爭者有過交易的經驗呢？

是 ☐ 否 ☐

如果是，

對開利競爭牌子銷售時的多項服務的滿意程度

非常不滿意

非常滿意 不知道

1 2 3 4 5 6 7 8 9 10 DK

請把最能表達你對  
開利的滿意程度的  
號碼圈出來

開利的滿意程度的 號碼圈出來	對開利表現的滿意程度										
	非常不滿					非常滿意					
1. 在應允的時間內對問題 作出反應.	1	2	3	4	5	6	7	8	9	10	DK
2. 第一時間解決困難	1	2	3	4	5	6	7	8	9	10	DK
3. 維修人員的專業知識及資格	1	2	3	4	5	6	7	8	9	10	DK
4. 維修人員的態度	1	2	3	4	5	6	7	8	9	10	DK
5. 告訴你機件發生問題的狀況	1	2	3	4	5	6	7	8	9	10	DK
6. 所做工作的質素	1	2	3	4	5	6	7	8	9	10	DK
7. 執行維修工作的配合(即時 間與佔地的安排)	1	2	3	4	5	6	7	8	9	10	DK
8. 離開時你的地方的整潔	1	2	3	4	5	6	7	8	9	10	DK
9. 對緊急維修的能力	1	2	3	4	5	6	7	8	9	10	DK
10. 開利的維修可減低冷氣機 損壞之可能性	1	2	3	4	5	6	7	8	9	10	DK

整体上對開利的交貨及一般表現的滿意程度

非常不滿意 非常滿意 不知道

1 2 3 4 5 6 7 8 9 10 DK

你曾否與開利的競爭者有過交易的經驗呢?

是 ☐ 否 ☐

如果是,

對開利競爭牌子的交貨及一般表現的滿意程度

非常不滿意 非常滿意 不知道

1 2 3 4 5 6 7 8 9 10 DK



請把最能表達你對  
開利的滿意程度的  
號碼圈出來

開利的滿意程度的 號碼圈出來	對開利表現的滿意程度										
	非常不滿					非常滿意					
1. 容易與開利聯絡	1	2	3	4	5	6	7	8	9	10	DK
2. 支援人員的態度	1	2	3	4	5	6	7	8	9	10	DK
3. 判斷問題報告的準確及 清楚	1	2	3	4	5	6	7	8	9	10	DK
4. 給予好的售後服務 (如改善系統的建議)	1	2	3	4	5	6	7	8	9	10	DK
5. 零件的供應	1	2	3	4	5	6	7	8	9	10	DK
6. 為你示範冷氣機的操作	1	2	3	4	5	6	7	8	9	10	DK
7. 開利是你生意上的夥伴	1	2	3	4	5	6	7	8	9	10	DK

整体上對開利服務與支援的滿意程度

非常不滿意

非常滿意

不知道

1 2 3 4 5 6 7 8 9 10 DK

你曾否與開利的競爭者有過交易的經驗呢?

是 ☐ 否 ☐

如果是,

對開利競爭牌子服務與支援的滿意程度

非常不滿意

非常滿意

不知道

1 2 3 4 5 6 7 8 9 10 DK

訂單及發票的處理
----------

請把最能表達你對  
開利的滿意程度的  
號碼圈出來

對開利表現的滿意程度											
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	<u>非常不滿</u>										<u>非常滿意</u>	<u>不知道</u>
1. 合約條款及工作規範清楚 列明	1	2	3	4	5	6	7	8	9	10		DK
2. 準確地處理訂單及其它轉變	1	2	3	4	5	6	7	8	9	10		DK
3. 發票遞送的時間性	1	2	3	4	5	6	7	8	9	10		DK
4. 發票令你覺得清楚	1	2	3	4	5	6	7	8	9	10		DK
5. 發票的準確性	1	2	3	4	5	6	7	8	9	10		DK

整体上對開利訂單及發票處理的滿意程度

非常不滿意

非常滿意

不知道

1 2 3 4 5 6 7 8 9 10 DK

你曾否與開利的競爭者有過交易的經驗呢？

是 ☐ 否 ☐

如果是，

對開利競爭牌子訂單及發票處理的滿意程度

非常不滿意

非常滿意

不知道

1 2 3 4 5 6 7 8 9 10 DK



請把最能表達你所  
認為的重要程度的  
號碼圈出來

	重要的範圍									
	不 重 要					非 常 重 要				
1. 銷售時的多項服務	1	2	3	4	5	6	7	8	9	10
2. 送貨及一般表現	1	2	3	4	5	6	7	8	9	10
3. 服務及支援	1	2	3	4	5	6	7	8	9	10
4. 訂單及發票的處理	1	2	3	4	5	6	7	8	9	10

請把最能表達你對  
開利的滿意程度的  
號碼圈出來

### 對開利表現的滿意程度

非常不滿

非常滿意

不知道

整体上對開利的表現的滿意程度

1	2	3	4	5	6	7	8	9	10	DK
---	---	---	---	---	---	---	---	---	----	----

整体上對開利競爭牌子的滿意程度

1	2	3	4	5	6	7	8	9	10	DK
---	---	---	---	---	---	---	---	---	----	----

請在任何方面對我們的服務作出批評，使我們能對你提供最佳的服務。

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.



其 他 資 料
---------

1. 請剔出下列最能表達你的行業的分類：

- ☐ 酒店
- ☐ 酒樓/商店/連鎖店
- ☐ 工廠
- ☐ 銀行
- ☐ 學校/教育中心
- ☐ 運輸
- ☐ 戲院/娛樂中心
- ☐ 其他 (請列明 \_\_\_\_\_ )

2. 你採用了開利的維修服務有多久? \_\_\_\_\_ 年 \_\_\_\_\_ 月

3. 你用開利產品所佔的百分率: \_\_\_\_\_ %

4. 你每年的空調維修費用預算是多少? HK\$ \_\_\_\_\_

5. 你估計你的空調維修費用在1990年比1989年會增加多少? \_\_\_\_\_ % 增長

6. 你用開利維修服務所佔的百分率: \_\_\_\_\_ %

7. 你在那一部門工作?

- ☐ 維修及保養部
- ☐ 採購部
- ☐ 物業管理部
- ☐ 總務部
- ☐ 其他 (請列明 \_\_\_\_\_ )

如你同意，我們會將彙輯的答案交給負責服務你機構的經理，不過他們會把資料絕對保密而且只會給予我們的市場策劃部門作統計及分析之用。

請把我們的答案交給適當的經理

姓名：\_\_\_\_\_ 電話：\_\_\_\_\_

公司名稱：\_\_\_\_\_

多謝你的合作，請填妥問卷及用回郵信封寄回開利。

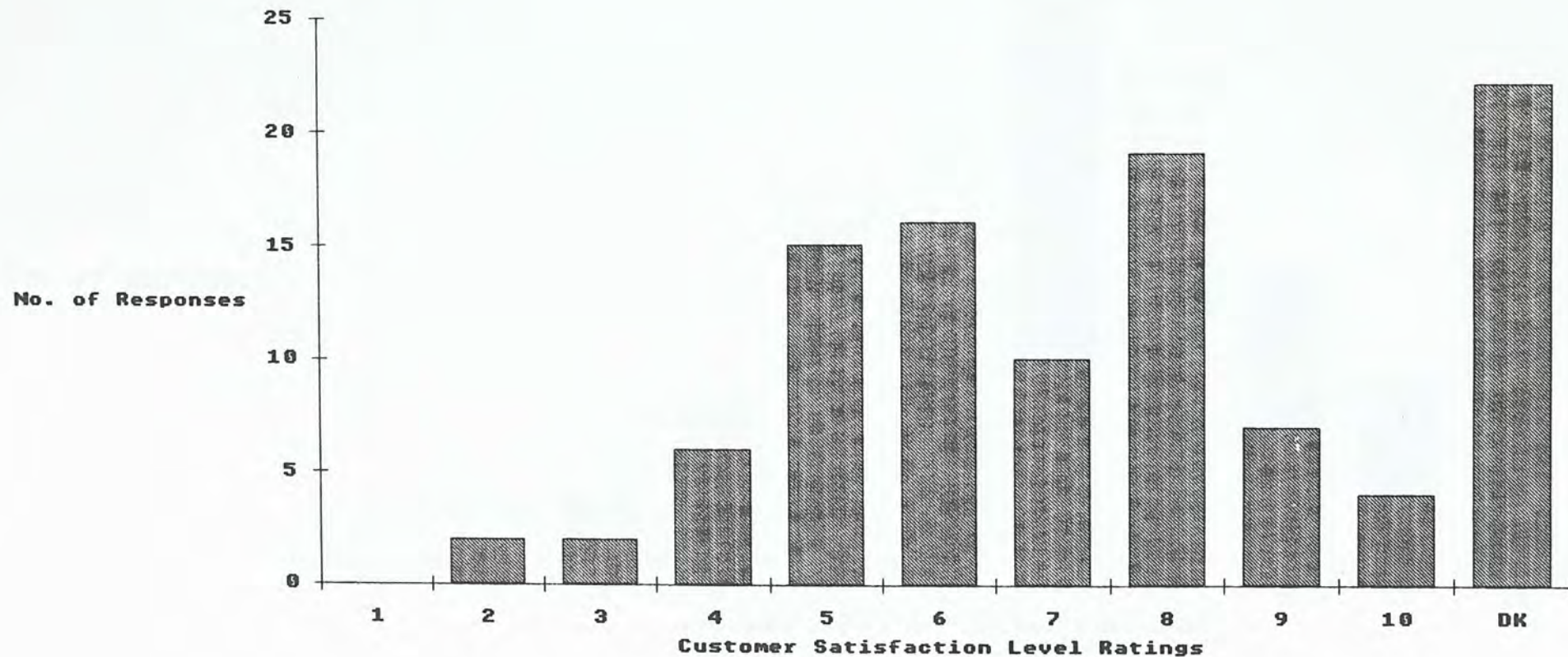
回郵地址： 香港新界沙田大圍成全路  
1-7號 2樓。



APPENDIX II

EXIHIBITS ON DISTRIBUTIONS  
OF THE  
SURVEY RESPONSES

Exhibit 1  
\*\*\* Sales Interactions \*\*\*  
Overall Rating





# Exhibit 2

## \*\*\* Delivery and Performance \*\*\*

### Overall Rating

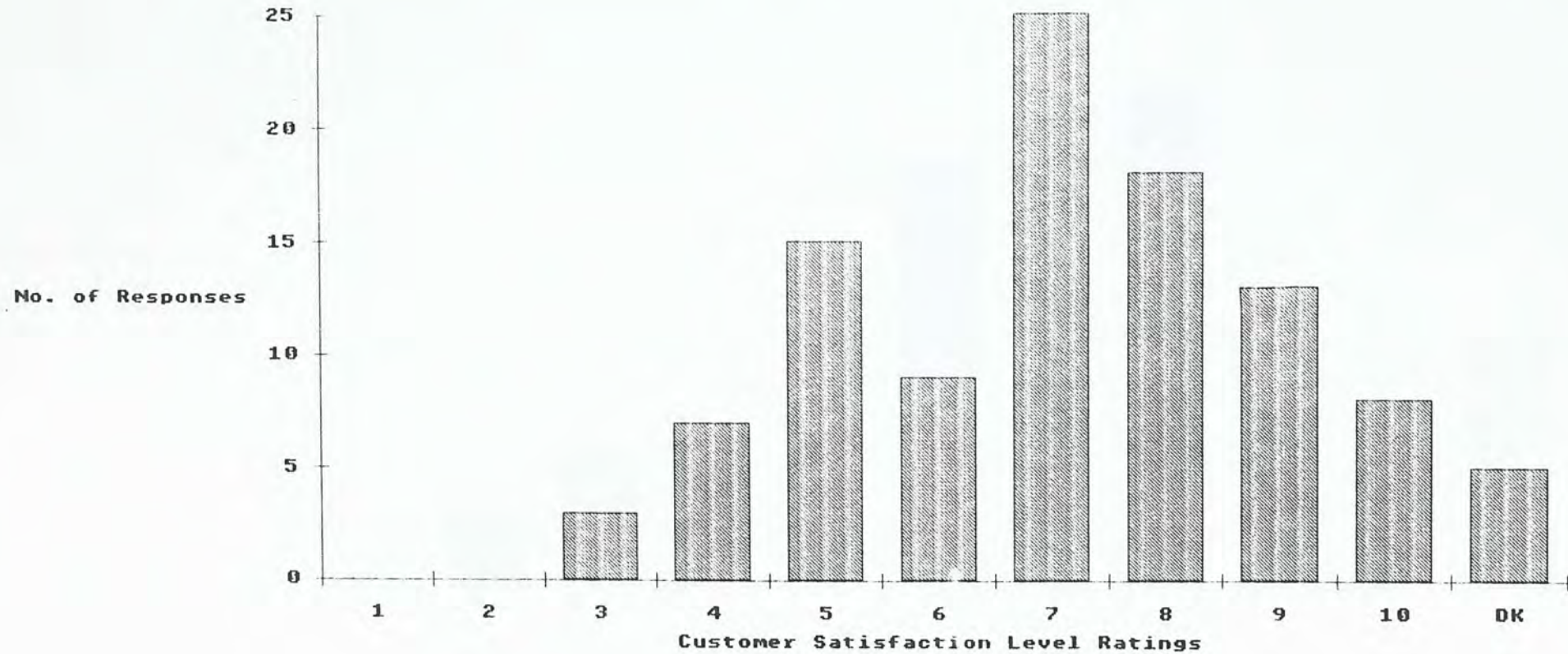


Exhibit 3  
\*\*\* Service and Support \*\*\*  
Overall Rating

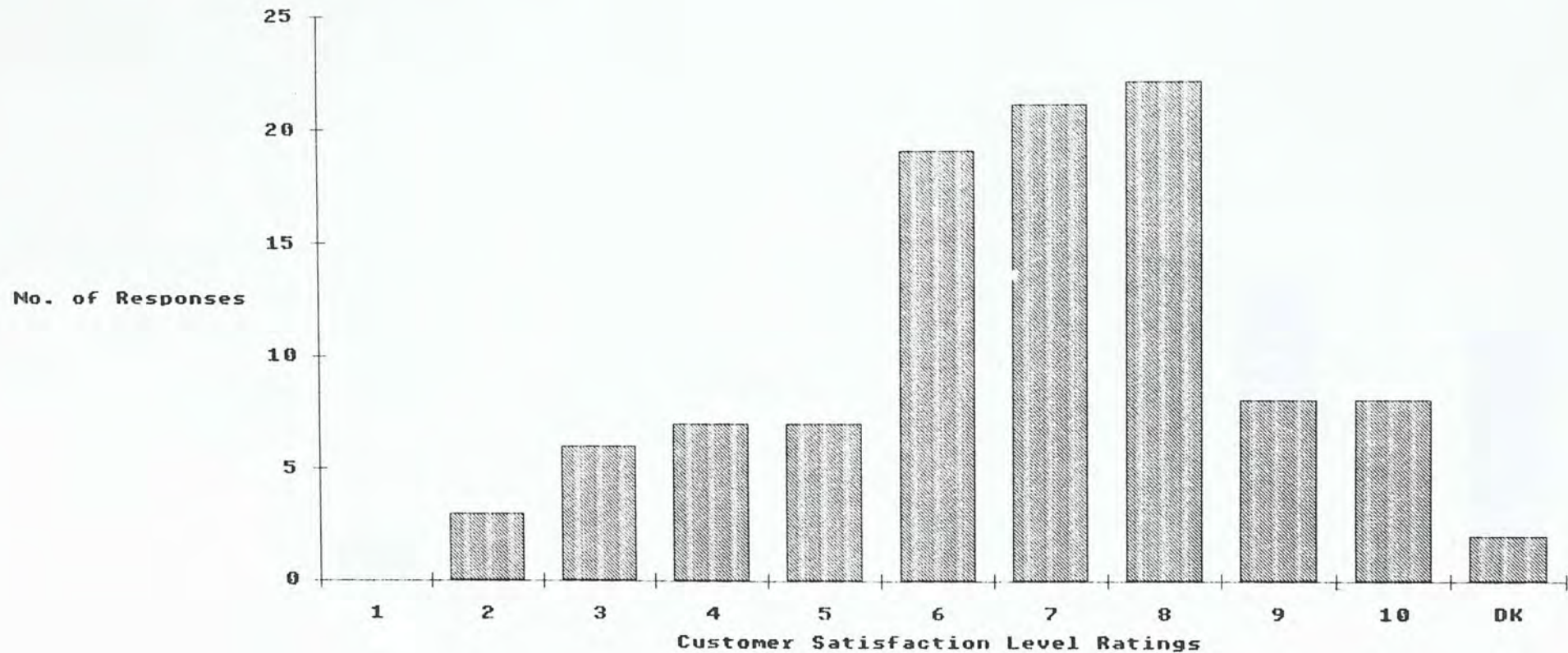




Exhibit 4

\*\*\* Order Processing and Invoicing \*\*\*

Overall Rating

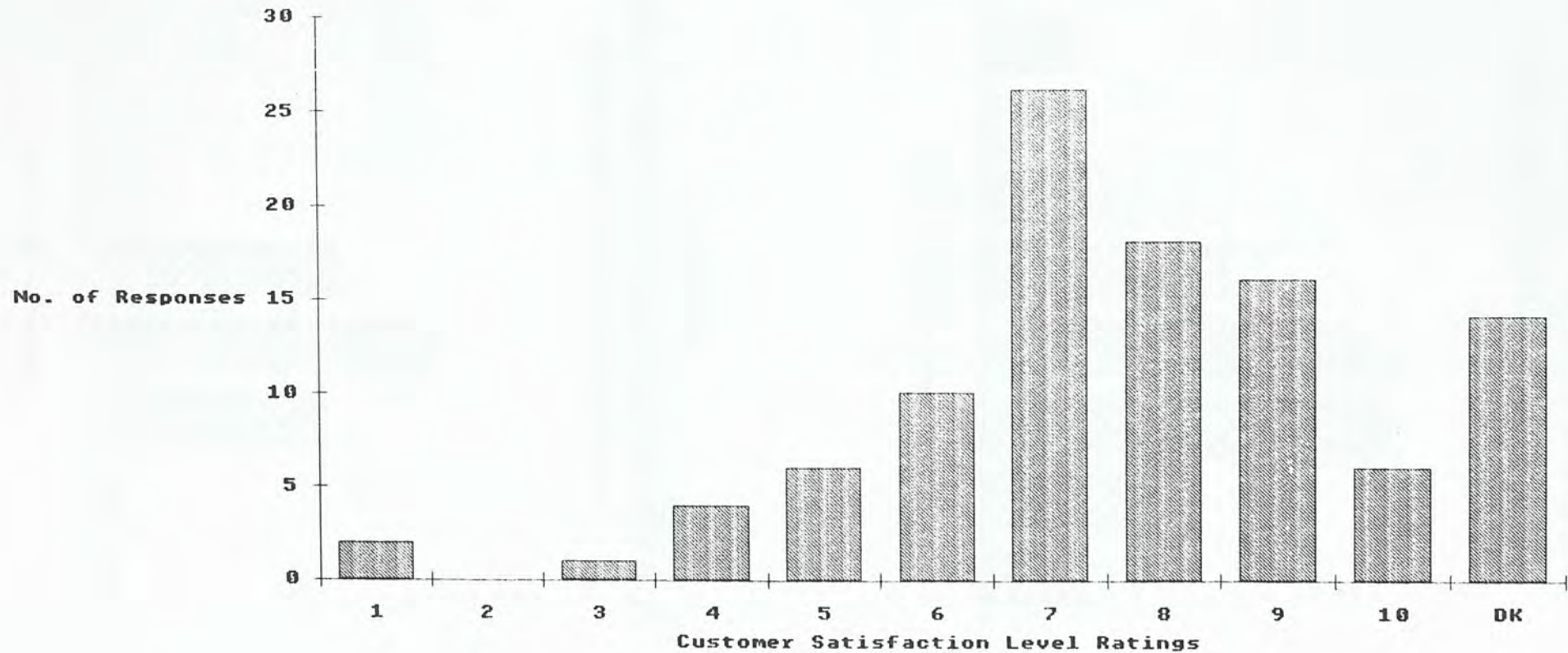


Exhibit 5  
Overall Carrier's Service Satisfaction  
Calculated from Responses

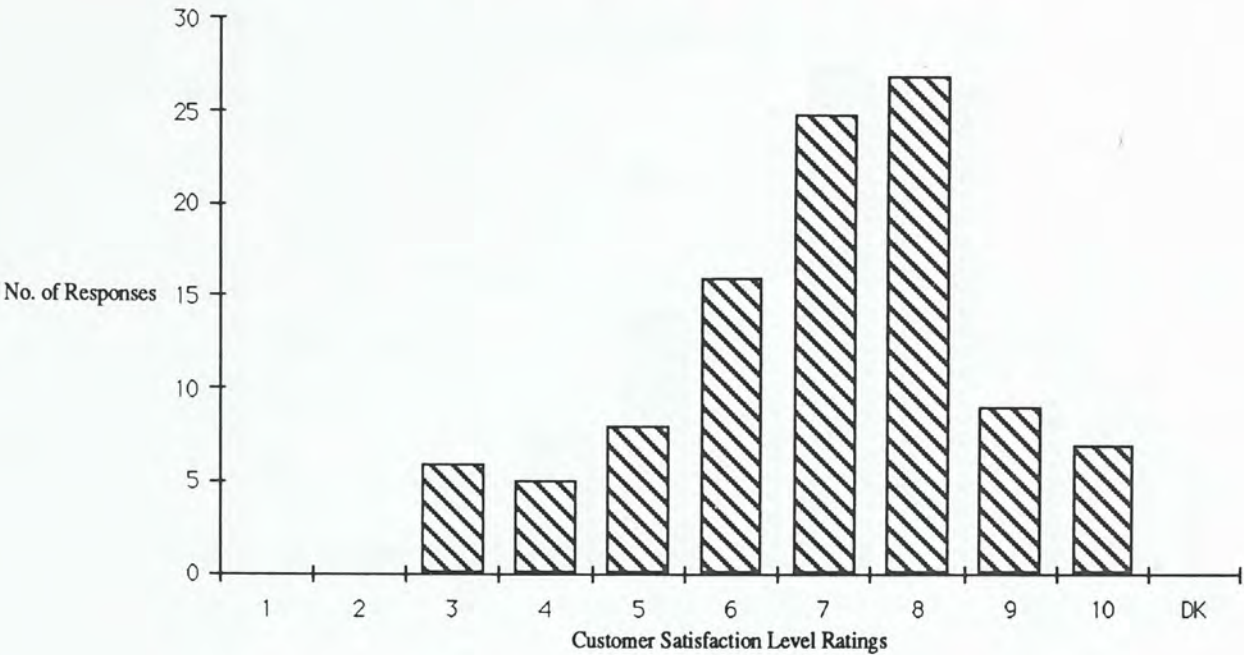


Exhibit 6  
Overall Competitors' Service Satisfaction  
Calculated from Responses

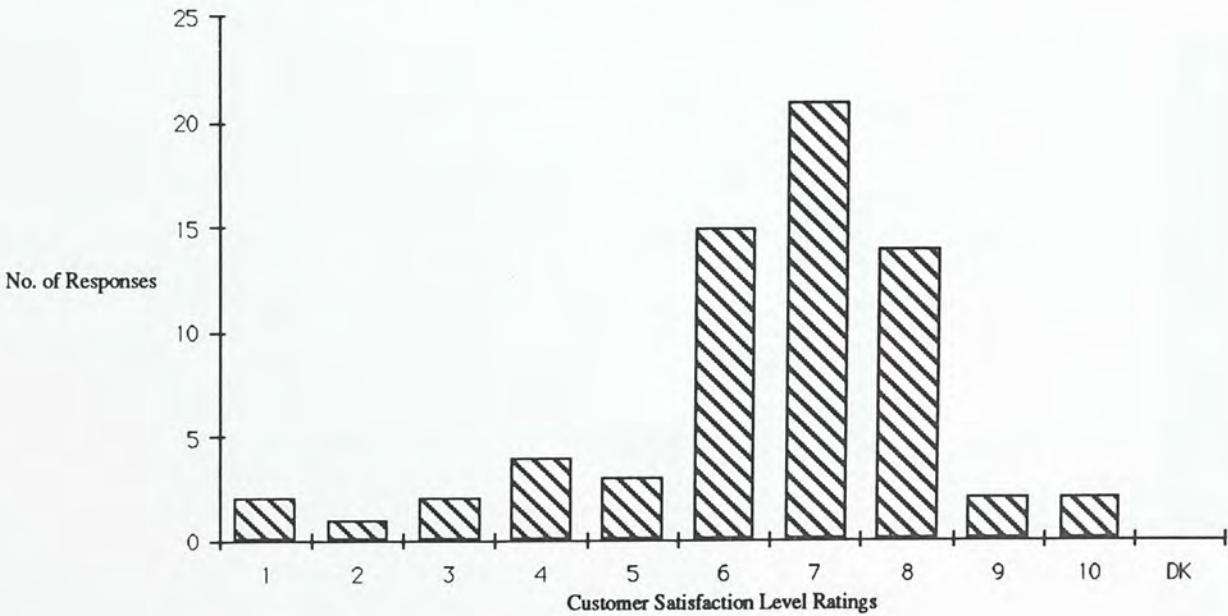




Exhibit 7  
Overall Carrier's Service Satisfaction  
Rated by Customers

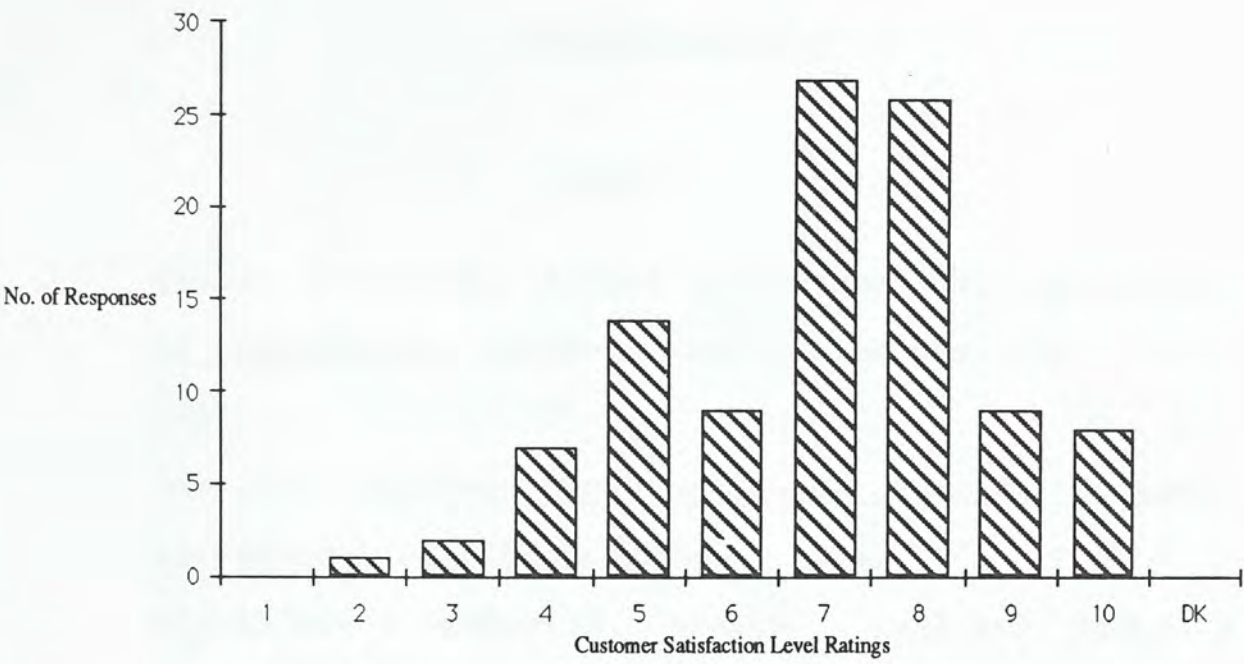
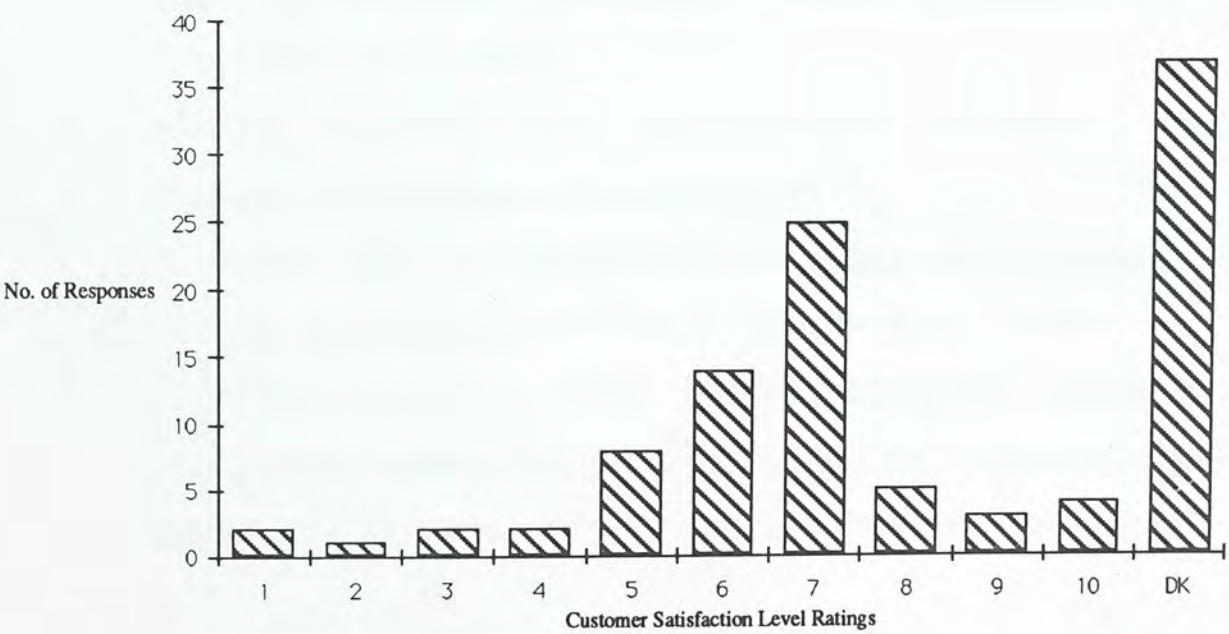


Exhibit 8  
Overall Competitors' Service Satisfaction  
Rated by Customers



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